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ABSTRACT

This publication is a compilation of articles directed toward providing a better understanding of the various aspects of gymnastics and to promote a greater proficiency among educators, coaches, judges, leaders, and participants of sport programs for girls and women. Articles in the first section cover the technical aspects of gymnastics: (1) vaulting; (2) the turning uprise; (3) floor and beam routine; (4) dance technique; and (5) apparatus and tumbling. Subsequent articles cover the topics of: (1) gymnastic equipment; (2) safety; (3) strength and conditioning; (4) injuries; (5) application of changes and clarification of the Federation of International Gymnastics Code; (6) judging; and (7) officiating. (JD)

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National Association for Girls & Women in Sport

Gymnastics

Selected Coaching Articles
Officiating Techniques

May 1989

René Niccollai
Editor

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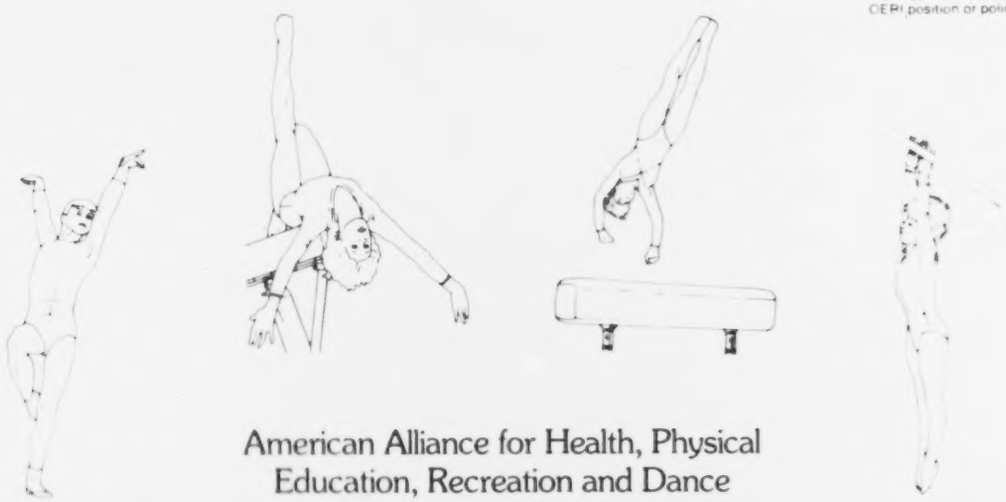

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Purposes of the American Alliance for Health, Physical Education, Recreation, and Dance

The American Alliance is an educational organization, structured for the purposes of supporting, encouraging, and providing assistance to member groups and their personnel throughout the nation as they seek to initiate, develop, and conduct programs in health, leisure, and movement-related activities for the enrichment of human life.

Alliance objectives include:

1. Professional growth and development—to support, encourage, and provide guidance in the development and conduct of programs in health, leisure, and movement-related activities which are based on the needs, interests, and inherent capacities of the individual in today's society.
2. Communication—to facilitate public and professional understanding and appreciation of the importance and value of health, leisure, and movement-related activities as they contribute toward human well-being.
3. Research—to encourage and facilitate research which will enrich the depth and scope of health, leisure, and movement-related activities; and to disseminate the findings to the profession and other interested and concerned publics.
4. Standards and guidelines—to further the continuous development and evaluation of standards within the profession for personnel and programs in health, leisure, and movement-related activities.
5. Public affairs—to coordinate and administer a planned program of professional, public, and governmental relations that will improve education in areas of health, leisure, and movement-related activities.
6. To conduct such other activities as shall be approved by the Board of Governors and the Alliance Assembly, provided that the Alliance shall not engage in any activity which would be inconsistent with the status of an educational and charitable organization as defined in Section 501 (c) (3) of the Internal Revenue Code of 1954 or any successor provision hereto, and none of the said purposes shall at any time be deemed or construed to be purposes other than the public benefit purposes and objectives consistent with such educational and charitable status.

Bylaws, Article III

Foreword

Laurie Priest
NAGWS President

Since 1899, NAGWS has been dedicated to providing quality and equality in sports programs for girls and women. This NAGWS Gymnastics publication is an important part of our heritage and is one of the many membership services that NAGWS offers. On behalf of the NAGWS Board of Directors I want to thank those volunteers whose dedication and commitment made this publication possible.

We have a rich history and have made great strides for girls and women in sport, but have many hurdles before us as we approach the 21st century. We need your commitment and support if we are to ensure that women will continue to serve as officials, coaches, and administrators. Become active in the one organization dedicated to providing quality sport experiences for all girls and women. Become a part of creating a future we can all grow in and be proud of.

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NATIONAL ASSOCIATION FOR GIRLS AND WOMEN IN SPORT

National Association for Girls and Women in Sport

The National Association for Girls and Women in Sport is a nonprofit, educational organization designed to serve the needs of administrators, teachers, coaches, leaders, and participants of sport programs for girls and women. One of six associations of the American Alliance for Health, Physical Education, Recreation, and Dance, the National Association for Girls and Women in Sport (NAGWS) is the only national professional organization devoted exclusively to providing opportunities for girls and women in sport-related disciplines and careers.

Purpose

The purpose of the National Association for Girls and Women in Sport is to serve as the primary organization for the professional development and promotion of girls and women in sport and physical activity.

Goals

1. NAGWS shall recruit, develop, and promote women for leadership positions in sport and physical activity.
2. NAGWS shall serve as an advocate for women's full participation in physical activity and sport leadership.
3. NAGWS shall serve as an advocate for the initiation and enhancement of quality programs of sport and physical activity designed to accommodate females of all ages, races, creeds, ethnic origins, economic levels, abilities and interests.

Functions

The NAGWS promotes desirable sport programs and provides leadership and professional opportunities through:

1. Formulating and publicizing guiding principles and standards for the administrator, official, leader, and player.
2. Publishing and interpreting rules governing sports for girls and women.
3. Providing the means for training, evaluating, and rating officials.
4. Stimulating, evaluating, and disseminating research in the field of girls' and women's sports.

5. Cooperating with allied groups interested in girls' and women's sports in order to formulate policies and rules that affect the conduct of women's sports.
6. Providing opportunities for the development of leadership among girls and women for the conduct of their sport programs.

Beliefs

The National Association for Girls and Women in Sport believes that:

1. Sport programs should be a part of the total educational experience of the participant when conducted in educational institutions.
2. Opportunities for instruction and participation in sports appropriate to her skill level should be included in the experience of every girl.
3. An understanding of the relationship between competition and cooperation and the utilization of both within the accepted framework of our society is one of the desirable outcomes of sport participation.
4. Physical activity is important in the maintenance of the general health and fitness of the participant.
5. Participation in sports contributes to the development of self-confidence and to the establishment of desirable interpersonal relationships.

Services

1. *GWS News:* Three times each year, this newsletter relates recent developments, national news and association events. Regular book reviews highlight new publications and a seasonal calendar posts upcoming activities.
2. The Affiliated National Coaches Council: The Council provides its members with opportunities for leadership and professional growth. Coaches, athletic trainers, and officials are given the chance to share ideas, receive valuable training and meet colleagues through frequent conferences. Members may participate in research projects and rules committees which allow them the opportunity to shape individual sports.
3. The Affiliated Boards of Officials: ABO's goals are to improve the quality of officiating for girls' and women's sports contests, to increase the number of competent women officials, and to promote the involvement of women in the governing bodies of other sport officiating groups. The ABO strives to accomplish these goals by developing officiating techniques, providing materials for training and rating officials, promoting the use of ABO-rated officials, and promoting standards with respect to fees, ratings, and uniforms.
4. Legislation: NAGWS speaks on Capitol Hill, providing strong and able representation in legislative activities to ensure quality and equality in programs for women.
5. Speaker's Bureau: NAGWS maintains a list of qualified members to refer as speakers when requests come in from across the nation and around the world.
6. Student Services: A student representative is appointed to the NAGWS Board of Directors each year to ensure student input, and a section of *GWS News* is

reserved for students to exchange ideas. Exciting student internships at NAGWS national headquarters provide valuable learning experiences and an opportunity to make professional contacts.

7. National AAHPERD Convention: NAGWS regularly hosts four in-depth, full-day conferences at this annual convention. NAGWS also sponsors or cosponsors approximately 60 convention sessions on topics ranging from physiological considerations to anti-discriminatory laws and administration guidelines and positive strokes for coaches.

Sources of Information and Service

All requests for information about services should be addressed to: Executive Director, National Association for Girls and Women in Sport (NAGWS), AAHPERD, 1900 Association Drive, Reston, Virginia 22091.

Coaches Academies of the Affiliated National Coaches Council

The National Coaches Academies were formed by the NAGWS to:

1. Provide leadership opportunities among coaches of girls and women at the local, state, national, and international levels.
2. Recruit women into coaching.
3. Provide a mentoring and informational network between coaches at all educational levels.
4. Assist in the formulation of standards and policies for conducting competitive sport programs for girls and women.
5. Inform members of current coaching techniques, trends, and technology.
6. Sponsor institutes, conferences, and clinics to promote the professionalization and certification of coaching.
7. Increase the participation rate of girls and women at the recreational, youth, school, collegiate, and elite levels.
8. Maintain a Speakers Bureau of qualified coaches as national and/or international clinicians.

Academies have been established for the following sports:

Badminton	Basketball
Bowling	Fencing
Field Hockey	Gymnastics
Soccer	Softball
Swimming/Diving	Synchronized Swimming
Team Handball	Tennis
Track and Field	Volleyball

Get involved . . . JOIN NOW! Membership benefits include 1) two newsletters per year, with updates, clinic dates, rule comparisons, coaching tips and techniques, and reports on the status of women and girls in each sport; 2) reduced rates at NAGWS/ANCC clinics and institutes; 3) a network for support, friendship, mentoring, and leadership training among coaches of girls' and women's sports; and 4) workshops at the AAHPERD Convention.

Please direct questions to:

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Reston, VA 22091
(703) 476-3450

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Introduction

René Niecollai

This NAGWS publication, *Gymnastics*, is a compilation of articles directed towards providing a better understanding of the various aspects of our sport to better promote a greater proficiency among educators, coaches, and judges.

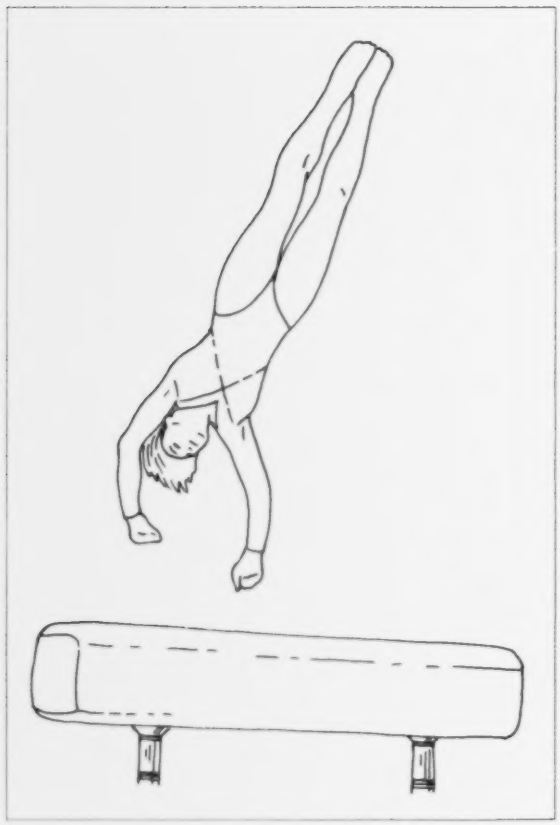
The authors contributing to this publication are recognized nationally as leaders in their fields and have earned the respect of their colleagues and peers. I wish to extend my deepest appreciation to them for taking the time to share their expertise and professionalism.

Bringing to fruition a publication of this magnitude is only possible with the full cooperation of a dedicated work force. I would be remiss if I failed to extend my deepest thanks to my committee as follows: Judy Grenfell, Terri Perris, and Elaine Thompson. I wish also to extend a special note of thanks to A.B. Frederick, Ph.D. for his consulting advice, and to Joan Mansfield for her outstanding illustrations.

In conclusion, I would comment that you, the reader, will make the final determination as to the value of this publication. I hope that your enjoyment in reading these articles parallels the enjoyable experience I have had in their preparation.

Vaulting

by Stormy Eaton



Stormy Eaton is owner and head coach of the Desert Devils in Scottsdale, Arizona, and a member of the U.S. National Coaching Staff. Stormy is a former two time National Tumbling Champ, two time National Trampoline Champ, NCAA Floor Exercise Champ, and World Silver Medalist on the Trampoline.

Vaulting is unique in the sport of gymnastics. The gymnast performs only one skill element, thus making this event analogous to the sport of diving. To teach vaulting, the coach must be technically competent in sprinting and understand the mechanics of specific vaults.

Vaulting, like diving, can produce anxiety and the coach must be particularly sensitive to hand placement and landing problems. A novice gymnast may display apprehension about correct hand placement on the front side of the horse. Thus, hand placement must be carefully coached from the start.

As the gymnast develops a faster and more confident run and pre-flight, concern shifts to the landing phase of the vault. Landing errors include landing with locked knees; landing while still twisting; and landing "short" with not enough rotation.

Another major challenge in vaulting instruction is the generation of speed. The gymnast must run fast enough for proper execution. More time is consumed on sprinting than on other phases of the vault. Remember that the horse is considered an *obstacle* to the novice. Initially, the novice will not run quickly until she feels confident with the run and the takeoff phase.

The Run/Sprint Phase

Gymnasts should learn to run from a sprint coach. Most technique of the sprint will maximize those very critical 2-4 seconds spent running. Arm swing is also important and time should be spent *from the very beginning* on the underarm approach to the board.

The Approach Phase

The underarm approach is performed during the final step (hurdle) before both feet contact the board. The arms are brought forward and upward and then as they come from upward to behind the body, there is a very quick continuous forward and upward motion until contact is made with the horse.

The critical direction of flight is *forward and upward.* This is in contrast to the overarm approach where the gymnast hits the board with the arms over the head and reaches forward and down to the horse. This latter technique normally results in a pike on to the horse which is very difficult to correct.

The Block Phase

Blocking (repulsion) is the action of pushing the body away from the horse in order to create lift and distance. It is the "explosive" phase of a vault. Blocking is accomplished by extension of the arms at the moment the hands touch the horse. The force used to push against the horse comes from the shoulders, not the elbows. This can be practiced on the ground by having the gymnast perform a handstand with shoulders shrugged, and then quickly extended. Because this is such an important phase of the actual vault, there must be ample time spent on the development of repulsion. Drills include hopping on the hands, handstand walking, and shoulder shrugging/extension drills.

The Landing Phase

Although everything that happens just before the landing phase contributes to the landing, the landing phase is still considered important enough to teach as a separate phase. Children must be taught to land with the knees bent and the upper body ready for the "shock" of landing. This is first taught by jumping off very low objects and gradually working up to competition height. The gymnast should also be taught how to roll out of a landing if it is "over-rotated," and how to land if the vault is "under-rotated."

Over-rotating a vault is often observed when learning new vaults. The gymnast must learn how to instinctively roll forward after landing (on handspring type vaults) rather than trying to stop the rotation by placing the arms in front to contact the mat. This arm contact can result in an injury if the contact is hard enough.

Under-rotating (on handspring type vaults) means that the gymnast did not have enough rotation to complete the vault and may begin to fall backward upon landing. Instinctively, the gymnast may reach back with her arms. This can result in an injury. To eliminate this potential injury, the gymnast should be taught to land without putting the hands down, and to roll backward rather than to stop the body's motion with the arms.

Squat Vaults

These vaults should be reserved for novices since there is little transfer to those vaults presently used in competition.

Handspring Vault

There are several training hints that might be used during the initial learning phase of a handspring.

1. Use two spotters, one in front of the horse and one in back. The spotter in front should be strong enough to lift the gymnast into a handstand position on the horse (spotting under the rib cage and on the quadriceps). The spotter in back should be strong enough to assist the gymnast on the landing by spotting on the back of the thigh and above the elbow.
2. Moving the board *too close* will not allow the gymnast to maintain a stretched body during the pre-flight phase. Because the pre-flight is the most important aspect of beginning vaulting, the gymnast must learn to stretch to reach the horse in an extended position. Most gymnasts should vault with the board no closer than three feet from the center of the horse to the front of the board. The most common board setting is between three and four and a half feet.
3. To prevent arching off the horse, mats can be stacked above horse height on the landing side of the horse. The gymnast can then practice staying straight after the block (repulsion) phase of the handspring and land on the stacked up mats on her back. Once the mats are removed, the spotter should assist with the landing.
4. The perfection of the handspring is dependent upon running speed and power; two elements that must be developed through constant repetition. It is advisable for the spotter to remain on the pre-flight side until the gymnast can vault and block without any hesitation on the horse. Then the spotter should back out gradually when the gymnast is confident that she can perform the vault by herself. If the gymnast lacks the self-confidence to attempt a solo vault, it is advisable that the coach stay on the pre-flight side until that self-confidence is developed.
5. Ideally, the gymnast should land at least one body length from the horse with the arms stretched. Once the gymnast can demonstrate good speed, a strong block from the horse, and achieve height and distance with a straight body position, then and only then is she ready to go on to the next, more difficult skill.

The Handspring Full Twist

This vault is ideally performed with the twist being initiated when the body is just beyond vertical and just before horizontal with the ground.

Teaching this vault requires patience and a technical understanding of twisting and rotation. It can take up to six months to learn this vault efficiently, and in most cases,

the longer the time spent on perfecting execution the better. The initiation of twist should not come from the hands while they are still in contact with the horse.

Spotting: Teach the twist late. Be sure the gymnast has a strong straight body handspring before teaching this skill.

1. The gymnast should perform a handspring and near the landing turn a quick half turn and face the horse. It is possible for the coach to assist the twist with hands on each hip during the flight phase and actually manipulate the turn. Another technique is to hold one of the gymnast's arms up following the block and spin the gymnast on the hip with the spotter's free hand. In either method, the twist should be initiated late.
2. As the gymnast perfects this half twist, she is ready to continue on to the full twist if she can perform the half without piking on the landing. It is very difficult in all twisting to twist in a pike position.
3. The coach may continue to manipulate the gymnast through the twist taking care not to let the gymnast land with her full weight if the twist has not been completed.
4. This skill can also be taught without hand spotting by using a pit filled with soft foam. The pit should, however, be filled as close to competition height as possible to prevent over-rotation created by falling too far to the landing.
5. The actual twisting mechanics used by the gymnast are: one arm over head pulling the shoulder toward the neck, and the opposite arm reaching down across the body pulling the shoulder across. If these two arms work in harmony, the twist can be very fast and efficient.

The Handspring Full and a Half Twist

This vault is similar to a handspring full. The major difference is that the twist must be performed earlier than a typical full twist to prevent over-rotation.

Spotting: This vault is difficult to manipulate without adding additional unneeded rotation. The spotter should therefore assist the landing rather than assist the twist. This is not an especially good vault for a gymnast with an explosive handspring full.

Yamashita

The Yamashita is a handspring followed by a quick pike positon then open position before the landing.

Spotting: The pike should be taught just after the block. It is common for the learning gymnast to perform the pike during the block which eliminates any repulsion as well as rotation needed for the landing.

1. Spotting on an elevated platform behind the horse (like a mat 12 inches high), the coach can hold the wrist with one hand and the small of the back with the other and manipulate the gymnast through the pike at the proper time.

2. The gymnast should ideally reach a minimum of a 90 degree pike and be extended again by the time she is horizontal with the mat.

The Yamashita Half Twist

This is performed just like the Yamashita with the addition of a half twist which is performed as the pike position is opened to extension.

The Half-On - Half-Off

The vaults that require a half twist on to the horse should not be taught until the gymnast has a good handspring. The reason for this is that the half-on requires a strong pre-flight. Teaching the gymnast this vault too early will create an archy pre-flight that is very heavy on the horse.

Spotting:

1. At first, the gymnast needs to come in to the pre-flight with a high handspring. The coach should assist the gymnast by turning her through her half twist during the pre-flight phase. The emphasis to the gymnast should be on reaching up for the handspring before the twist is initiated. This will put the gymnast in the correct position to perform the twist.
2. The half-off *must* be performed in the same direction as the half-on. To determine this, use the following formula: during the pre-flight phase, the shoulder that drops first on the half-on is opposite the actual direction of the twist (right shoulder down means the gymnast is twisting to the left). Once on the horse and ready for the half-off, the gymnast must turn to the left in order to complete the twist.
3. To execute this vault well the pre-flight and post-flight should be even in distance and height, and at least a body length away from the horse.

The Half-On - Full Twist Off

This vault requires the gymnast to come in on the pre-flight higher than a typical half-on - half-off vault. The reason for this is that the full off has a tendency to create rotation which is not necessarily needed. In order to slow down this rotation, the gymnast approaches the horse higher than normal (time in the air will slow down the forward momentum).

Spotting:

1. The twist off can be spotted with the coach standing on the side that the gymnast twists away from. The coach can then assist the twist by placing hands on the hips and turning the gymnast through the last half of the rotation.
2. This is a difficult vault for a gymnast with an explosive half-on - half-off. Over-rotation is a common problem in the learning phase of this vault.

More Advanced Vaults:

Tsukahara

This vault is executed by performing a half on during the pre-flight phase, followed by a back somersault from the hands during the post-flight phase.

WARNING: The Tsukahara is a vault reserved for advanced level vaulters and should not be taught to recreational classes.

Spotting:

1. A pit is recommended when teaching this vault.
2. A coach must have prior experience teaching this vault and should not attempt teaching this vault without that experience.
3. The gymnast should perform several "timers" which are lead-up skills to the Tsukahara. A "timer" is when the gymnast does a half-on to the horse and practices pushing away (blocking), but does not do the back somersault. The coach holds on to the gymnast's wrist and supports the stomach with the other hand and actually *prevents* rotation allowing the gymnast to practice with explosive power but not actually turn the somersault over.
4. Once the coach can gauge the power available to the gymnast, the decision to complete the Tsukahara is reached.
5. When turning the Tsukahara, the gymnast blocks the horse, bringing the knees through rapidly and flipping backwards.
6. The coach (standing behind, and against the horse on an elevated mat or spotting box) reaches in on the gymnast's stomach with one hand and on her back with the other, physically turning her through the somersault. This spot is very fast and takes time to learn. Two spotters behind the horse will also contribute to the safety of this vault.
7. If the gymnast is too big for the spotter to spot (particularly if the gymnast decides in the middle of the skill to stop), then the coach should not attempt teaching this skill without additional spotters.
8. The coach should continue to spot the gymnast for several weeks (possibly months) until the gymnast has developed enough rotation to complete this vault successfully time after time.

Tsukahara (Pike)

This vault is essentially the same as the Tsukahara tucked. The gymnast should be able to perform a strong tuck before attempting to pike. The pike Tsukahara requires more height to be performed correctly.

Spotting: The same as for a Tsukahara tuck.

Tsukahara (Layout)

The Tsukahara in a layout position is for very advanced level gymnasts only. The body should be straight from the block to the landing. Only a slight arch during the block and slight pike during the landing phase is acceptable.

Spotting: Essentially the same spot as for a Tsukahara tuck with much more emphasis being put on assisting rotation from the block. The hand that spots the stomach must create a lot of rotation for the gymnast during the learning phase.

The Tsukahara Full Twist (Tuck)

A Tsukahara full twist is currently only being performed at the National and Elite levels. This vault should only be taught by an experienced coach and with the use of a pit. The vault is performed by having the gymnast execute a full twisting back somersault from the horse following the half-on block phase.

Spotting: This skill is very difficult to spot and it is suggested that it only be taught into a pit. The lead-up skills required to execute this skill are: a powerful "open" tuck Tsukahara with enough rotation that the knees do not need to be held. Also, a full twisting back on tumbling is crucial.

Tsukahara Full Twist (Layout)

This is essentially the same as a Tsukahara full twist in the tuck position, but requires a more powerful block and more height (due to the fact that rotating in a layout position requires more time in the air than a tuck position).

Handspring Front Somersault (Tuck)

This vault is performed by executing a handspring on to the horse followed by a front flip from the hands to a landing on the feet on the mat.

WARNING: This vault can be catastrophic! It should only be taught by a qualified coach with previous experience.

Spotting:

1. The pit is ***highly*** recommended for teaching this vault. There are so many different positons the learning gymnast could land in, that the pit provides the extra margin of safety.
2. The vault requires an explosive over-rotating handspring as a "timer." The coach should spot the gymnast on a "timer" by holding the wrist and small of the back during the block phase.
3. When the gymnast is ready to "turn" the vault, the coach (on a mat or box behind the horse) should assist the rotation by spotting on the back (in the middle) and on the hamstring. The coach must then reach back in to assist with the landing using a spot that can be effective for both over and under-rotation.

The Turning Uprise

by Todd Gardiner

Todd Gardiner is the owner/director of the Illinois Gymnastics Institute. He is a member of the USGF National Coaching staff and also lectures internationally. Todd graduated from Boise State with a major in physical education and was the 1976 National Jr. College Trampoline Champion.

With the emergence of the new (1989 to 1992) Elite compulsories, it is necessary to make efficient changes in the structure of our compulsory system. A panel of talented and concerned coaches and judges studied the new Elite compulsories and recommended a system for the U.S. which will allow a smoother transition into the Elite ranks. For example, in the bar routines several elements are the same across levels of skill, but handstand angles increase notably and execution requirements are more stringent for the advanced gymnast. One of the elements taken from the Elite bar routine is 5.01 (from a handstand on the high bar (HB)-swing downward between both bars, swing forward with ½ turn (180°) at or under height of HB). Along with several other skills, this element has also been included in the Level 10 bar routine. This article is devoted to element #3.67, the turning uprise. This element, which is the ultimate amplitude level of skill #5.01, is also extremely popular in a majority of optional bar routines.

Before starting any of the drills suggested, you must understand that in order to perform a complete blind change, the gymnast must learn in which direction to do the ½ turn. A majority will want to twist the same way they do in a full twisting salto on the floor. Let me explain: if the right hand goes down first in performing a roundoff on the floor, then in a pirouette, the right hand would change to undergrip first and the left hand would reach over making the ½ turn. In a blind change, the

right hand would reach under first making the ½ turn and then, after the turn, the left hand would change to over grip. Moving in this format, the gymnast would be making a left turn in the pirouette and blind change as opposed to the direction she may twist in a full twisting salto on the floor.

While coaching these drills, it is important to establish a certain height requirement for the turning uprise. Execution at bar height or above is recommended. However, it will be important to work the turning uprise with as much height as possible (preferably to a handstand). These "lead-up" drills should then, too, be performed to the maximum height. You can be sure that the "winning routines" will always be the ones that go beyond the requirements expected!

For the present drill, it will be useful to have a floor bar (one that is only a few inches off the ground). If this is not possible, these drills can still be executed on the floor. The object of this drill is to promote a better understanding of the inward pirouette (blind change), and of how it actually feels to perform it on a bar and in a handstand position.

1. Kick up to a handstand and initiate the turn with the hips and shoulders. At the same time turn the head under the armpit. Keep hands stationary!
2. Put a landing mat in front of the bar. Start from a stand on the mat, then execute exercise #1, releasing the hand and dropping to the back in a hollow body position (spotting may be necessary).
3. Stand across from the mat on the other side of the bar. Execute exercise #1 releasing the hand and dropping to the stomach in a hollow body position (again, spotting may be necessary).
4. Place the bar against a padded wall. Starting at one end of the bar execute blind changes continuously down the wall (again, spotting may be necessary).
5. Without bar and on a regular mat, practice straight-arm back extension rolls to a handstand blind change—½ turn inward pirouette.

The equipment needed for the next and final lead-up drill will be unevens with the low bar out, preferably over a deep foam pit or deep and soft mat pit. (If it is not possible to take the low bar out, the next best option would be to use a men's high bar). This drill will allow the gymnast to actually perform the ½ turn uprise at the beginning stages and progress at her own pace to the maximum—a handstand! Note: the gymnast must first know how to perform a good "tap" or stretch position under the bar from a long swing in order to execute this next drill.

Stage 1. From a still hang, perform 3 to 4 swings initiating a tap or stretch in the backward swing and a straight or hollow position in the forward swing.

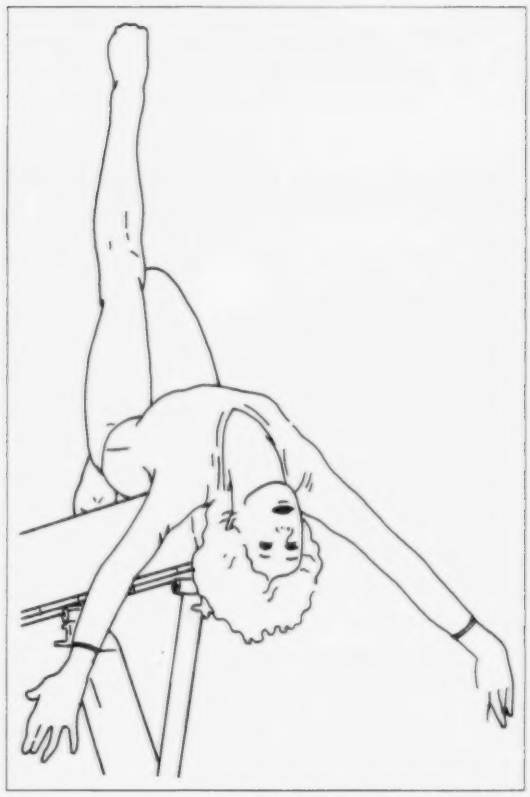
Stage 2. When reaching the maximum height on the forward swing, after the 3rd or 4th swing, turn 180 degrees and place the free hand on the opposite side of the stationary hand, ending in a mixed grip position. As soon as the weight is placed on the free hand, the stationary hand should also turn to an over grip.

Stage 3. After repeating this exercise numerous times, attempt a series of swing ½ turns in a row. With a strong tap and a firm hollow position through the turn, the body should start accelerating faster on the down swing and finishing higher on the front swing—eventually rising to a handstand.

When training for the ½ turn uprise, execute all drills properly! Watch out for head out, broken alignment of the shoulders (planching), and leg separation in turns. Make sure the gymnast always pushes away and extends while initiating the pirouette. One last note: realize that the name "turning uprise" is misleading—execute the uprise first, *then* turn! Good Luck!

What Makes a Floor and Beam Routine Extraordinary?

by Nancy Roach



Nancy Roach is presently the head coach of Flips Gymnastics in Reno, Nevada. She has been actively involved in coaching at both Stanford University and the University of Nevada. Nancy has participated in numerous National clinics, and is the author of the 1985-89 Age Group Floor Exercise Compulsories.

An extraordinary floor and beam routine incorporates many qualities, some more easily identified and created than others. All of the techniques cited in this article can be utilized for both events in addition to compulsories.

Body posture and presentation are major contributors in outstanding beam and floor routines. There must be a statement of confidence and poise with the gymnast's posture and presentation as she steps onto the floor. The development of this awareness and feeling must begin at an introductory level. Beginners mimic those around them. If their coaches and advanced teammates do not present themselves with point and grace, how will the youngsters learn? It is imperative to continue training the gymnast emphasizing this at all times, not only in competition.

When developing and training body posture, the chest is always pulled up with the shoulders pressed down and back. The chin should be elevated to elongate the neckline. The hips are neutral without pressing into a lower back arch. If these body positions are trained early on, it will become second nature and a natural presentation will develop.

Another fundamental which is very often overlooked, or not easily recognized, is body alignment. Proper technique involves square hips and shoulders, while maintaining a balance and symmetry of the arms and legs. Body alignment creates the total picture in fluid dance connections, as well as gymnastic skills.

The fluidity in connections cannot be mastered if the elementary arm positions are not trained. Once the gymnast has practiced these positions, it must be incorporated into the individual routines. Unfortunately, this technique is not as easy to identify as an execution error, but when used, it will give an overall picture of continuity and smoothness throughout the routine.

Basic connections will ultimately evolve into difficult connections. These connections should encompass the use of intricate floor patterns, direction, and level changes. Body posture, presentation, alignment, and elementary positioning will also contribute to smooth connections.

The finishing touches in the creation of an extraordinary routine are interpretation of the music, spacial awareness, focusing, and a theme which can be carried out in both dance events. When these feelings are projected, a communication is created between the gymnast and her audience. The communication, along with the basic fundamentals, will set these routines apart from the rest.

Check List for Evaluating Dance in Gymnastic Routines

- Presentation, initially and through the routine.
- Body posture, chest lift.
- Are the shoulders down and chin elevated?
- Turn out from and with the entire leg through the ankle and in all dance and acrobatic movements.
- Shoulder and hip alignment in flexibility and other pertinent moves.
- Arms used with symmetry. Arms should pass through all basic positions to exhibit smooth transitions from one move to the next.
- Clean, precise position on turns. Check for a definite position of the free leg and an extension or definite position on the support leg. (Leg bent or straight throughout the turn.)
- Use of the entire floor with interesting changes or direction using straight or curved lines.

- Leaps
  - — Use of the arms on the run and take off for a leap.
  - — A "picture frame" must be seen in the air on each leap.
  - — Light landings using toe, ball, heel.
  - — Check for extension of rear leg on landings.

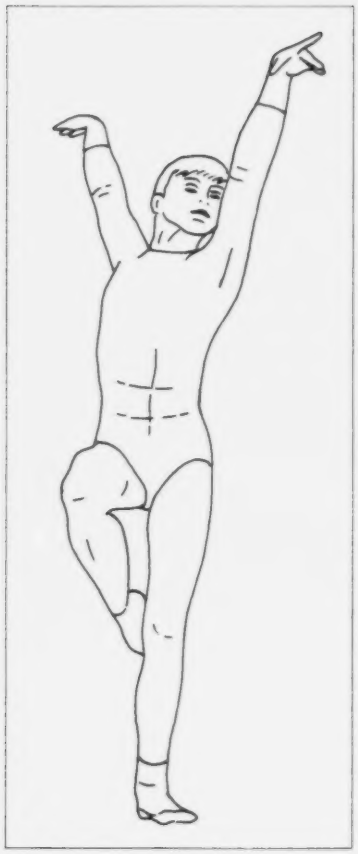
- Body alignment in handstands and walkovers.
  - — No piking.
  - — Clear alignment in hips and shoulders.
  - — Look for arabesque position in and out.

- Every routine should have an interesting acrobatic element.
- A theme must be projected in the dance, as well as the music without being repetitious or busy.
- Are there rhythmic changes in the dance, as well as the music?
- Focus and eye contact should accentuate the theme and style of the composition and music.

- Smooth, flowing connections must be seen in the following areas:
  - — Moving in and out of leap series.
  - — Moving in and out of turns.
  - — Level changes.
  - — Moving into the corners.
  - — Moving in and out of acrobatic parts.
  - — Use of the entire floor with a flowing connection of straight lines and curves.
  - — Look for presentation and focus to the judges and audience.

Dance Technique

by Tammy Biggs



The ability to transfer weight efficiently marks the difference between a tense, jerky execution and a flowing, controlled one.

There are only four ways in which a jump can be executed:

From two feet to two
From two feet to one
From one foot to one
From one foot to two

1. There is no weight transference in jumps of the first category. Since the push-off is totally vertical, weight is equal on all sides of the body and on the feet; these jumps precondition the gymnast to feel the verticality in all jumps.
2. In the second category, jumps from two feet to one, the push-off is from both feet, but weight is transferred to one leg either at the height of the jump or just before the moment of landing. Although the body is supported by one leg only, the total weight of the body is not allowed to be borne entirely by the leg. Much of it is absorbed by the pelvis. The plie of the supporting leg, at the moment of landing, acts rather like the contracting coils of a pogo stick, minimizing the stress of landing, but also coiling up for the next jump.

3. The weight-absorbing quality of the pelvic area lends lightness to jumps in our third category, from one foot to one foot. The strength of the supporting leg alone would not be sufficient to lift the body off the floor. It is only through the cooperation of the pelvis, which does not allow the total weight of the body to descend onto the foot, that the leg can act as a springboard and propel the body upward. When this type of jump is done from one foot to the other, as in grand jete, the benefits of correct weight transfer in the air are maximized.
4. In the fourth category, jumping from one leg to two, the jump begins on one leg, as it does in the jump from one foot to one foot. The landing is evenly onto both feet.

All jumps derived from soubresaut come under the first category, jumps from two feet to two. The weight is evenly distributed between the two feet, the push-off is vertical, and the landing is perfectly centered. In changement the legs open to the side (only enough to bypass each other) at the height of the jump. The correct execution of changement prepares the student for the correct execution of all even-numbered entrechats, as well as for other beaten steps.

The ballon, so important in jumping, is first experienced in these simple jumps from both feet. The vertical push-off determines to a great extent the height of the jump. The verticality of the landing teaches a balanced weight distribution which safeguards ankles and knees from injury. One's upper body is placed compactly around its axis while the legs thrust against the floor.

Glossary

ARABESQUE: A basic balletic pose, generally taken in profile. The working leg is extended straight behind, the supporting leg may be straight or on demi-plie. The hips and shoulders are square to each other and to the line of direction.

ASSEMBLE: To assemble or place together. Fourth category jump. From fifth position the working leg slides out and is thrust to a 45 degree angle in the air; as the leg is extended, the supporting leg pushes off; the legs join before landing in fifth position. The movement can be done devant or derriere; when executed a la seconde it is taught both dessur and dessous.

ATTITUDE: A pose inspired by the statue of Mercury by Giovanni da Bologna; its first use is credited to Carlo Blasis. The supporting leg is straight, the working leg is raised to a 90 degree angle or higher, and bent; the foot and the knee remain aligned to each other on the same horizontal plane.

CHASSE: Chasing one foot with the other. The right foot slides forward to a fourth position; then with a slight spring off the floor, the left foot draws up to it in the air, and the right foot opens to fourth as the land occurs. The movement is continuous. Chasse can be done in croise or effacee traveling forward or backward; it can also be done from side to side.

ENTRECHÂT: A straight up-and-down jump in which the dancer crosses the legs, each in front and then behind the other, the desired number of times. Each crossing counts as two movements. Even numbered entrechats finish on both feet: entrechat deux or royale springs from both feet, beats front to finish in the back. Entrechat quatre beats back to finish in front. Entrechat six beats back then front to finish in the back. Odd numbered entrechats finish on one foot, the other leg on the cou-de-pied, in front or behind; entrechat trois beats front finishing on the cou-de-pied back; entrechat cinq beats front then back and finishes on the cou-de-pied front; entrechat sept beats back then front and finishes on the cou-de-pied back. All entrechats can be reversed, in which case the back leg is thought of as the working leg.

FOUÈTTÉ: Whipping — a strong whipping movement of one leg accompanied by half or full revolution of the body. *Grand fouette saute.* Third category jump. Preceded by a failli, the right leg extends in a grand battement devant. Pushing off the supporting leg, the dancer turns away from the working leg in the air and lands in first arabesque. This can also be done with a full or a half revolution in the air. Following the first fouette the dancer swings the working leg through first position to grand battement devant and executes a turn in the air en dedans while the whip is taking place. The landing is on the same leg.

JETÉ: Thrown movement. Third category jump. *Grand jete en avant.* A high jump from one leg to the other. It begins with a grand battement to the front, pushes off the supporting leg, and lands on the front leg with the back leg in arabesque. It travels forward in the air.

GRAND JÊTÉ IN TOURANT: Grand jete in which the legs pass each other in the air while the body is revolving. The first leg does a grand battement devant; the second leg kicks while the first leg is still in the air, the legs passing each other in the back as the body revolves to face front again. The landing is in arabesque on the first leg.

PAS DE CHAT: Cat's jump. Third category jump. Fifth position, right foot back. The right foot lifts to a high retire as the left bends to push off. After the push-off, it bends to a high retire. The legs pass each other in the air as the left leg travels up to retire and the right travels down. Landing is on the right leg with the foot closing in front a moment after the landing.

SISSONNE: Named for the creator of this step. Second category jump. Springing up from both feet, the working leg opens at the apex of the jump; the landing is onto one leg. It may travel de cote, en arriere, or en avant, or it may remain en place.

SOUBRESAUT: Sudden bound. First category jump. A spring upward from both feet to both feet. It can remain en place or travel en avant, en arriere, or de cote. The legs must be held close together throughout the action.

TEMPS DE FLECHE: Arrow step. Third category jump. Preceded by a pas de bourree couru or a glissade, this is a high jump with one leg shooting through like an arrow. After a running preparation, the left leg kicks in a grand battement devant, while the right leg pushes off and executes a battement developpe. The landing occurs on the left leg with the right leg extended devant.

TOURS EN L'AIR: Turns in the air. The dancer springs up from both feet in fifth position and revolves one or more times, finishing in fifth position, opposite leg in front. Tours en l'air may also finish in various positions on one leg as well as on one knee.

Basic Anatomy: Principles of Posture and Muscular Control

1. *Correct Posture (Angle of Pelvis):* The placement of the torso over the legs is of great importance: The pelvis must be centered, not tipped forward or backward. The abdomen is drawn in and the diaphragm raised; the shoulders are dropped naturally, resting downward; and the head is held straight, with the eyes looking forward. The arms are held down and rounded from the shoulder-blades to the fingertips, slightly forward from the body.

2. *Turn-Out:* The perfectly turned-out position is acquired gradually, and should not be forced. The 180° ideal 1st position should not be required until the muscles have been conditioned to assume it without strain; an angle of 100° is sufficient. The knee and thigh can be comfortably maintained in a turned out position at this angle, and the danger of the gymnast forcing her feet to turn out while her knees rotate inwards (resulting in "rolling over" on the front of the foot) can be averted (avoided). This is very bad for the muscles and ligaments around the knees if done the wrong way!

3. *Centers of Muscular Control:* The muscles of the abdomen, buttocks, and thighs are the dancer's center of muscular energy and control. The muscles in the thighs are pulled upward, causing a slight tension in the buttocks and abdomen; this frees the torso above the waist from strain and eliminates tension from the neck, shoulders, and arms. The gymnast must be aware of the importance of this control with the slight counter-pull upward in the muscles of the thighs, abdomen, and buttocks. This control will then become an unconscious part of the gymnast's equipment as it is for a dancer.

4. *Plies:* Plie is the first exercise of the barre. In executing a plie the body's alignment is experienced in relation to the outward rotation in the hip joint. This is perhaps the chief physiological experience of this exercise. In all positions the pelvis remains centered, so that the line of gravity falls between the feet in second and

fourth positions and falls over the feet in first, third, and fifth positions. The knees remain poised over the feet throughout the bending and stretching. The weight of the body is equally distributed during the action.

The benefit of the plie, however, is not only in its stretching properties, but also in its power of rebound. If the muscles are tightly contracted there can be no rebound but only two separate impulses: one to produce the downward movement and the other to produce the upward thrust. If the plie is allowed to be divided into descent and ascent, the continuity of motion is destroyed and the muscles work twice as hard as necessary. Overdeveloped thighs can be the result of this manner of executing the motion.

Even in the most gentle and controlled descent the potential for a powerful rebound can be experienced.

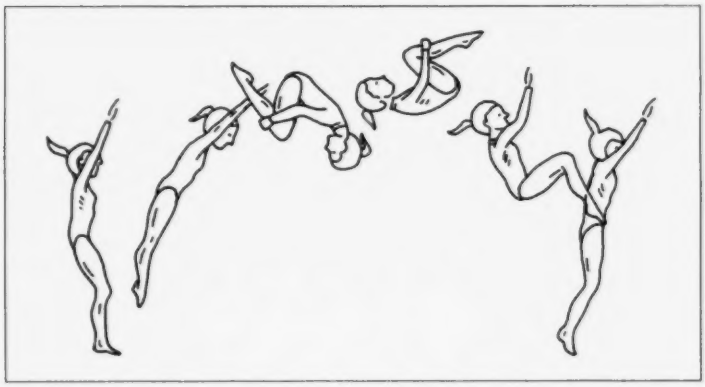
The placement of the pelvis is never sacrificed to the depth of the plie. It remains in place, as do the shoulders, head, and the whole upper torso. The rotation in the hip joint is isolated and monitored for constancy during the motion; this experience can be a reference point for all other motion.

The fluidity of all motion depends upon the efficiency of the plie. A good plie does not necessarily mean a deep plie—it is good because it serves exactly the movement that follows. The power of the plie resides in its ability to rebound: the gymnast bends the knees so far as the next step warrants, then extends the limbs in a strong push against the floor. This extension can be slow and gradual if a sustained adagio is performed, or it can be a sudden quick thrust in allegro, but without the plie almost nothing can happen in dance. In landing, a centered plie softens the impact of the jump and guards the joints and muscles against injury. Plies stretch and strengthen the musculature of the legs.

Front Tumbling

by Al Fong

Al Fong, Blue Springs, Missouri, is the head coach of The Great American Express Gymnastics Club Al is a gymnastics educator on a National level and is a member of the U.S. National Coaching Staff.



The USA has a great opportunity to be the front runner in introducing and exploring the next frontier in gymnastics—front tumbling. Although tumbling forward is certainly not a new concept, it was never pushed past the boundaries of the front handspring or front salto. The trend in the late '60s and early '70s encouraged back tumbling but ignored front movement totally. Most coaches and many doctors discouraged front tumbling due to potential injury to the back, knees, and neck, thought to be produced as a result of the activity itself. Front tumbling is probably no more hazardous than back tumbling. If the basics are stressed and progressions properly designed, both tumbling groups can be pursued aggressively. If the gymnast possesses the physical capabilities to perform multiple backward saltos, twists, and advanced tumbling combinations, she can do the same going forward. Although there are some differences (i.e. forward direction vs. backward direction), there are an overwhelming number of similarities such as strength requirements, posture, body position, air sense, and rebounding angles. Techniques for twisting and teaching progressions for systematic learning can proceed in a safe and efficient manner.

There appears to be a mystique about going forward. Some gymnasts are known as "front tumblers." Teaching an apprehensive, older gymnast advanced front skills should be avoided unless a natural aptitude exists. Such gymnasts should be encouraged to maintain the normal course of progressive back tumbling goals. The 5-7 age group catches on quickly to front tumbling. Encouraged to tumble backward *and* forward, they will learn rapidly.

The dive roll, front handspring, and front salto stepout are commonly taught front tumbling skills. With a little creativity, many other front elements may be introduced.

It is important to identify the essential building blocks that enable gymnasts to grasp the front tumbling concept:

1. Ability to fall correctly and safely forward, sideways, and backward;
2. Body posture and positions (straight body, tuck, pike, arch);
3. Forward roll;
4. Handstand;
5. Front limber;
6. Heel lifts (hip extension);
7. Twisting directional awareness;
8. Running cartwheel.

Explanation of Points:

1. *Ability to fall correctly and safely.* As in most skills in gymnastics, there is a learning process which is developed partly by discovery, partly by instruction, but mostly by making mistakes and correcting them. Therefore, an element of risk always exists. To minimize the potential for injury, it is essential to teach a gymnast how to roll forward, sideward, and backward with and without the hands, instinctively under controlled conditions, so that he/she will be able to roll safely in an uncontrolled fall.

2. *Body posture and positions.* To communicate effectively with the gymnast, common terminology must be agreed upon. In front tumbling, as with most gymnastic activities, four body positions are used; the tuck, pike, arch, and straight body line. The head positions must be defined as, head up (chin away from chest), head down (chin toward the chest), head neutral (chin centered evenly between high and low position). The reason for this explanation is to clear up confusion for the gymnast as to what "up" means when the gymnast is either in the upright position or an upside down position in a handstand. Body alignment is essential for two reasons: maximum extension for that "larger than life" look, and maximum safety to the back, knees, and neck.

3. *Forward Roll.* The simple forward roll should be taught as a "hips over the head" action and not just the "head tuck under" action because later on in the development of the gymnast, the forward roll becomes the front sommie. Additionally, when learning new skills, the forward roll is an excellent escape route for an unexpected fall.

4. *Handstand.* Since most skills in gymnastics start with, finish with, or pass through the handstand position, one should spend the time and effort to feel and learn the correct posture for maximum extension, strength, and efficiency.

5. *Front Limber.* A requisite for a front walkover, the front limber is a handstand that falls forward, with the back arching until both feet hit the floor at the same time. Ideally, a gymnast should be able to continue forward as the feet hit, extending all the way to a standing position. It should be noted that although some gymnasts possess the back and shoulder flexibility to do this, it isn't absolutely necessary to have these qualities to be a good front tumbler, but it sure does help.

6. *Heel lifts (hip extension).* This is perhaps the hardest basic skill to learn. A brief description: a one or two foot directional pattern that arcs backward, upward, and then forward, usually from a rebounding action off a board, floor, or trampoline. The first foot to leave the floor is kicking up to a handstand is an example of a heel lift using one foot.

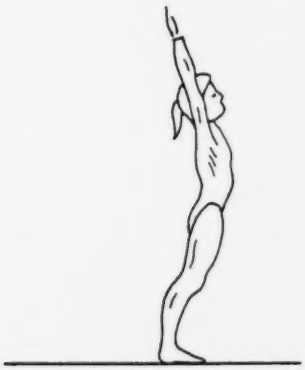
7. *Twisting directional awareness.* There are many theories on the most efficient way to twist around the axis of the body for maximum speed and revolution. The primary aspect that precedes how to twist, is which direction to twist. It is *not* as simple as left or right. Standing upright, upside down, lying on the floor facing up, or lying facing down, can easily confuse the beginner as to which is left or right and where to turn. A good rule of thumb is "when turning to the left or right, turn to the left or right of your *body*, and not to your surroundings." Guarantee that you will turn to the left correctly by bringing your left elbow around and behind your back, forcing your body to follow its lead. Another rule to follow that will ensure progressive, continuous tumbling when using three or more skills (changing from back to front tumbling or vice-versa), is if a gymnast uses a left roundoff, twist left. When learning to twist using front or back tumbling skills, twist in the same direction. One pitfall to be aware of is teaching a barani (front layout with a half twist) like a "no-handed" roundoff. Although using this technique makes it easy to learn, what actually happens is that a gymnast will twist in the direction opposite of her roundoff. Remember the rule "left roundoff, left twist"? The rule is broken when investigated closely. A gymnast does a left roundoff but actually twists to the "right" side of her body. A very confusing concept, but an important one to understand.

8. *Running Cartwheel.* Performing a running cartwheel, successfully (especially one that "pops" off the hands) requires a coordinated effort of three closely timed body movements. With the arms extended at the ears, the gymnast lunges toward the floor and turns sideways. Upon hand contact with the floor, the shoulders sharply recoil, one leg kicks upward abruptly (heel lift), and the lunge leg explosively pushes off the floor. If all three movements are executed simultaneously, the cartwheel will be fast and powerful. When teaching young gymnasts, avoid the biomechanical explanation. You will get the results you want by asking them to do "the world's fastest cartwheel."

Once these eight basic elements are in place, or at least understood well enough to pursue, it will be simply a matter of time before we see exciting progress in front handspring variations, multiple twisting, and multiple tucking saltos. Good luck!

Continuous Front Handsprings

RIGHT



- Center of gravity is in front of feet
- Arms are at ears, head up
- Feet rebound sharply upon contact, propelling gymnast to hands

WRONG

- Center of gravity is behind feet
- Knees, hips, and back are out of alignment
- Arms are not by the head and the head is down

Rebounding for Saltos from Front Handsprings

RIGHT

- Knees, hips, and back are extended in alignment
- Center of gravity is behind feet
- Head is facing the ceiling with the arms up by the ears

WRONG

- Center of gravity is in front of the feet
- Hips, knees, and back are out of alignment
- The head is down and the arms have left the ears

A Class Structure for Teaching Apparatus and Tumbling

by Susan Ammerman

Susan Ammerman, Wayne, New Jersey, currently serves as the Vice-President for Women for the USGF. She has been teaching health and physical education for 14 years at the Junior and Senior High levels. Sue has been an officer of Judges' Certification, Inc. for the past 20 years and holds a Brevet judges' rating.

This is a four week unit: 30 to 40 minutes per class with approximately 25 to 30 students in each class. Class structure depends upon the number of stations available as well as the number of students in the class; i.e. the more stations available the smaller the groups. This presentation gives suggestions for five stations.

Basic safety rules to be instituted before starting:

1. No jewelry;
2. No one is allowed on any apparatus unless the instructor is present and has given approval;
3. No one is allowed on any apparatus without spotters (other students may be designated as spotters);
4. No skills may be used or attempted that have not been taught or approved by the instructor;
5. Certain skills (determined by the instructor) may only be spotted by the instructor;
6. Students must stay at their assigned station until told to rotate by the instructor;
7. All students must walk from one station to the next;
8. Each class must begin with a basic warm-up: stretching, flexibility, and overall conditioning.

The first class opens with an explanation and demonstration of two skills on two different apparatus. The apparatus of preference for starting are the balance beam and the uneven bars. All apparatus will follow a pre-determined progression of skills. Skills should be demonstrated to the entire class prior to dividing it into groups.

Balance Beam: front support, squat up, walk. The spotter walks alongside the beam with arm extended in case the student on the beam needs assistance.

Uneven Bars: jump to front support with one spotter standing on either side of the student with one hand under the arm and the other supporting the wrist. This way the arms cannot collapse. Placing a folded mat under the bar may facilitate jumping.

The class is now divided in half with one group working at the beam and the other at the bars. The purpose is to get students accustomed to spotting on very basic skills, and for the instructor to see how well they are doing. After everyone has had a chance to spot and participate, rotate the groups to the other piece of apparatus.

The second class starts with vaulting (the introduction of the approach run and jump onto a mat) and floor exercise (the introduction of the lunge, scale, and V-sit). Again, divide the class, but this time into four groups: vault, bars, beam, and floor. Rotate the groups after the students have had a chance to spot and participate. Pay particular attention to the newly introduced areas, i.e., all students from your location. Circulate to quickly correct any potential problems.

The third class is a review using verbal questions about all the skills and spotting techniques used to date. Introduce a new station: work on a line on the floor or the low balance beam for toe and squat turns.

Place the students in five groups and rotate these groups according to the total number of students in the class. For example, 5 in a group rotates every 4-5 minutes; 8 in a group rotates every 7-8 minutes. The instructor will select the groups by ability as well as prevention of disciplinary problems.

During the rotation from one piece of apparatus to another, the students must walk and stay in line. Each time they rotate the first student goes to the end of the line; thus each student will have an opportunity at being first on the apparatus. The next two students in line will spot for the student on the apparatus. This procedure will continue through the whole group (example, #3 and #4 will spot for #2; #4 and #5 will spot for #3, etc.).

The movement of the students from apparatus to apparatus should follow an established rotation, i.e. floor to vault, vault to bars, bars to beam, beam to line or low beam, line or low beam to floor.

The fourth class teaches the next level of skills on each apparatus in addition to the required spotting technique. Return the groups to the apparatus and rotate accordingly. Be sure to note the last station for each group.

The fifth class begins where the group left off at the end of class four. Continue the rotations until all the groups have had an opportunity to try the newly introduced skills.

New skills are introduced only after each rotation has been completed; usually every other class. If the groups are larger than 5 or 6 students then it would take longer for all the groups to try the new skills. Each day *verbally* review with the students the skills and spotting techniques from the previous class.

At each apparatus there should be a **posted** list of the skills in a progressive order from easy to difficult so that the students can readily see which skills they should be working. This allows the students to feel comfortable, confident, and safe in the progress of their skill development. The students should respond well to this disciplined structure. Another key is not to leave the students at one station too long. All students should be tested on both skill performance and spotting proficiency.

Safe Progression Skills: Grades 4-12

Uneven Bars

1. Front support: use mat and/or board to increase chance of success;
2. "Skin the cat:" to a pike sustained hold;
3. Hang: chin above the bar, not resting on bar;
4. Back hip pullover: low bar;
5. Cast;
6. Back hip circle;
7. Back hip pullover: high bar;
8. Pike down: low bar (preparation for underswing);
9. Underswing off low bar;
10. Sole circle dismount: from stand on floor, hold LB and jump, feet on, shoot off;
11. Sole circle dismount from cast (LB).

Vault (set horse at 100 cm)

1. Approach run—hurdle to the board—jump to a mat (8 inches or more):
   a) Straight jump
   b) Tuck jump
   c) Straddle jump
2. Vault to hands and knees on the horse;
3. Vault to feet on horse;
   a) Straight jump off
   b) Tuck jump off
   c) Straddle jump off
4. Vault over the horse
   a) Squat
   b) Straddle

Note: Spotter for squat vault stands by the horse (on the post flight side) and holds the vaulter's wrist and underarm. For the straddle vault, the spotter stands facing the student to catch the vaulter's upper body and shoulders if necessary.

5. Body stretched in pre-flight and after-flight for squat and straddle;
6. Handsprings: dependent upon the skill development of each student, lead-up drills will be conducted, but only with the instructor spotting.

Balance Beam (set beam at 100cm in height)

1. Front support mount;
2. Squat up;
3. Walk on beam: forward and backward on toe;
4. Toe turn;
5. Scale;
6. Squat turn;
7. Knee scale (with hands);
8. Knee scale dismount;

9. Tuck jump;
10. Skip (first on the floor then on the beam);
11. Half-turn on one foot (first on the floor and then on the beam);
12. V-sit (with hands, then without);
13. Tuck jump dismount;
14. Straight jump with ½ turn dismount.

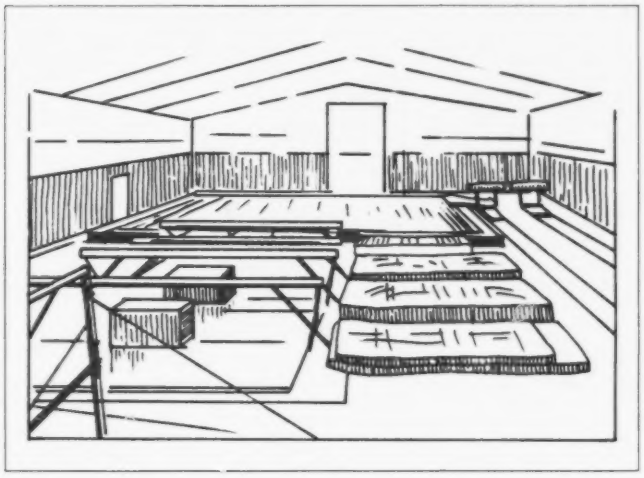
Floor

1. Lunge;
2. Scale;
3. V-sit;
4. Bridge (from supine position);
5. Forward roll;
6. Backward roll;
7. Straight jump;
8. Jump full turn;
9. Cartwheel;
10. Backbend down with spotter;
11. Back straddle roll;
12. Front straddle roll;
13. Handstand with spotter;
14. Handstand ½ turn;
15. Backbend up and down;
16. Back walkover;
17. Front limber.

The Hazards of Altering Gymnastics Equipment

by Ken Cysewski

Ken Cysewski is a National Sales Manager with American Athletic, Inc., Jefferson, Iowa. Ken was a member of Iowa State's Mens' Gymnastic Team and was named an All-American in 1976.



Gymnastics is a very enjoyable sport in which to participate and observe. However, gymnastics by its very nature must be treated with respect by the coach and the athlete. Few other sports exist in which the athlete and equipment interact as closely as they do in gymnastics.

Gymnastics equipment manufactured by reputable companies is designed to meet FIG specifications and tolerances. The specifications and designs take into account the dynamic movements the apparatus will be subjected to during the performances of gymnasts. These specifications attempt to make the apparatus as safe as possible for the athlete. For this reason, reputable manufacturers do not encourage altering their equipment in any way. The altering of gymnastics equipment seriously jeopardizes the safety of the user.

If the equipment has been altered, the manufacturer's warranty and liability are negated. The person(s) doing the altering would then have to carry the full burden of defending themselves in a court of law, should an accident happen.

When setting up equipment, take the time to examine its condition. For example, if a spinlock is worn or a cable is fraying, immediate action must be taken to correct this situation. This can be done by contacting your manufacturer's sales representative and ordering replacement parts. You *should not* use the equipment until it is in proper working condition.

Good judgment and common sense are the rules of thumb. If the product is not set up correctly, or if it is just not working, stop using the product and call the manufacturer.

Most gymnastics equipment is highly engineered by knowledgeable mechanics. The temporary gains, whatever they may be, in altering equipment is totally negated through the long term use and maintenance of equipment according to the manufacturer's design and instructions.

Safety in Gymnastics

by Michael D. Rizzuto

Michael D. Rizzuto, Esq., is the head coach of Nittany Gymnastics and Dance, State College, PA. He has had extensive coaching experience since 1974 throughout the eastern U.S., and serves as a USGF National Safety Certifier.

Gymnastics, like any activity encompassing height and motion, involves a certain level of risk to the participant. The potential for injury, serious or even catastrophic, is always present. That is why it is important for everyone involved in the sport of gymnastics to be concerned with safety. The whole purpose of the USGF Safety Certification program is to raise the level of safety awareness in the gymnastics community.

The USGF Safety Manual defines safety awareness as, "an attitude or condition that promotes reasonable and prudent actions and behaviors relative to safety measures in gymnastics." Everyone involved in gymnastics shares the responsibility for reducing the risk of injury to the participants and reducing the severity of injuries that do occur. Accidents and injuries will happen in gymnastics, as in any sport. One of the major goals of the safety certification program, and this article, is to reduce the number and seriousness of injuries that do occur by getting everyone involved in safety.

No ribbon, trophy or team championship is worth the life or well being of a young gymnast. Coaches, gymnasts, and parents must put things in the proper perspective, and insure that all safety precautions are taken. Gymnastics is a beautiful and exciting sport, and when proper progressions and procedures are followed it can be a safe sport. Short cuts in training (skipping or not using progressions, improper physical or psychological preparation, etc.) are not worth the additional risks placed on the performer. It must be remembered that time (progressions) and repetition are and always will remain the best teachers in gymnastics.

This article will outline possible ways coaches, gymnasts, judges, and parents can help increase the safety of our sport. Finally, a number of specific issues will be dealt with which should be of concern to everyone involved in gymnastics.

Because of their professional training and position of authority, coaches have the primary duty of providing a healthy and safe environment for their gymnasts. This

duty begins with establishing a safe program that follows a logical curriculum and sound educational principles. The gymnastics educator must also provide adequate supervision for the age and ability level of the students. It is estimated that 80 percent of all athletic injury cases in the courts involve inadequate supervision.

The coach must also provide adequate equipment and facilities pursuant to the program's goals. If the coach wants to have an elite or high level program, the equipment requirements are drastically different than if they intend to teach only recreational classes or the lower level compulsories.

In addition, the coach must establish and follow training rules which are designed with safety concerns in mind. These rules must be enforced on a regular basis, because children cannot be expected to follow rules that are not enforced.

Procedures must be followed in the learning of skills which include the proper use of safety equipment such as spotting belts, "pits" and other mats, and the proper use of spotting. Coaches must be competent to spot the skills they are teaching. Spotting is just as much of a skill as the elements of the sport, and must be learned and perfected using proper progressions and by taking safety precautions (i.e. a back up spotter).

Coaches should establish a coaching philosophy and identify the reasons they are involved in the sport. My philosophy is as follows:

I. General Statement:

A. Competitive gymnastics provides many benefits to the participants, it provides the opportunity for self expression, self discovery.
B. Although it is an individual sport, a team concept helps take the pressure off the individual, and teaches the benefits of cooperation.
C. Gymnastics is fun. When you learn skills, you feel a sense of accomplishment and feel good about yourself. Learning is fun.
D. Children should set their goals high, and the coach should do everything he/she can do to help them achieve their goals. But, more importantly, the coach should make the journey toward those goals worthwhile, so that if the gymnasts fall short of their goals, the experience is still beneficial.

II. The primary goal of coaching gymnasts is to help individual children develop as human beings, physically, mentally and psychologically. The job of the coach is to use gymnastics as one means of developing a child's personality and character as well as their body and mind. The benefits of gymnastics for the gymnast include the following:

A. Increased self concept of the child.
B. Increased self confidence of the child.
C. It gives the child a sense of pride in accomplishment, at being able to do something not many other people can do.
D. Increased ability to concentrate.
E. It helps the child develop a winning philosophy for life.
F. It teaches children:
    1. The necessity and benefits of hard work.
    2. Discipline in mind and body.

3. The benefits of physical fitness.
4. Goal setting.
5. Time management.
6. Healthy competitiveness.
7. Aggressiveness/Assertiveness.
8. Patience.
9. Respect for authority.
10. How to listen.
11. The importance of proper diet and nutrition.

G. It helps children understand and deal with many difficult emotions, such as:
1. Fear
2. Anxiety
3. Frustration
4. Jealousy
5. Anger
6. Love

III. To summarize the role of the coach: He/she should be a positive influence in the lives of the children, developing a program that is safe, enjoyable, serves the above goals, and follows sound educational principles.

A. The coach must not do or say things that would have a negative effect on any of the above mentioned goals, especially the goal of building a child's self concept. Gymnasts, no matter how strong they appear, are vulnerable children who can be hurt deeply.
B. The coach should break the learning process down into its most simplified form, and teach by progressions. Simplification makes gymnastics safer, and easier for the gymnasts to understand.
C. Discipline and proper supervision are essential for safe gymnastics.
D. Coaches must have a working knowledge of educational and sports psychology to have a safe, successful, and beneficial program.

As was mentioned above, everyone involved in gymnastics shares the responsibility of insuring that gymnastics is a safe sport. Some of the responsibilities of the gymnast are as follows:

1. Dress appropriately: never wear jewelry, loose fitting clothes, improperly fitted or worn out grips.
2. Try as hard as they can on every turn. Injuries occur when a child holds back because of fear, lack of concentration, or laziness.
3. Follow progressions.
4. Be physically prepared to participate.
5. Be psychologically prepared to participate.
6. Set realistic goals.
7. Skills should not be performed without proper safety progressions.
8. Always check the equipment and matting to see that it is properly set and safe.
9. Listen to the coach.

Parents also have safety responsibilities which include:

1. *Encourage* your children; don't push them.
2. Check out the qualifications of the people who are teaching your child.
3. Check to see that the gym has a curriculum that follows progressions (moving from simple skills to gradually more difficult elements).
4. Check to see that the gym provides adequate supervision.
5. Ask what safety rules the gym follows.
6. See if the gym has adequate equipment for the type of program your child is in.

Judges also play an important role in gymnastics safety, which includes the following:

1. See that the equipment is adequate for the level of the meet.
2. If a gymnast is performing a skill in such a manner that you feel her well-being is threatened, bring it to the attention of the proper authorities at the meet.
   a. First, the coach of the gymnast.
   b. Secondly, the meet referee.
   c. Finally, the rest of the coaches at the meet.
3. It may not be the judges' obligation from a legal standpoint, but as a concerned human being they should make every effort possible to prevent a standpoint, but as concerned human beings they should make every effort possible to prevent a serious injury.

Finally, I would like to deal with some specific issues which concern many people in the sport of gymnastics. Initially, in many of my safety certification courses, I have been confronted with questions and concerns in reference to the adequacy of equipment in high school competitions. It appears that often times school officials are not aware of the potentially dangerous situation that exists when inadequate or out-dated equipment is used. Moreover, often times a coach must face the decision of forfeiting a competition rather than competing on potentially dangerous equipment.

School officials, particularly athletic directors, must be made aware of these situations, and the fact that they too share in the responsibility of providing a safe environment in which to compete. Schools without proper facilities should not be permitted to host competitions, and they should be the one to forfeit the meet if adequate facilities cannot be provided. Coaches, gymnasts, and parents alike must insure that school officials understand the importance of this issue.

Secondly, everyone involved in gymnastics should be aware of the proper way of handling gymnastic injuries. Serious injuries should be cared for by competent sports medicine or orthopedic physicians. All other injuries should receive the same treatment: rest, ice, compression, and elevation for 48–72 hours. Proper rehabilitation after any injury is essential for a timely and safe return to the sport.

Lastly, everyone must remember that training pits and mats are not fail safe and improper use could result in serious injuries. Pits and mats are not short cuts to proper progressions.

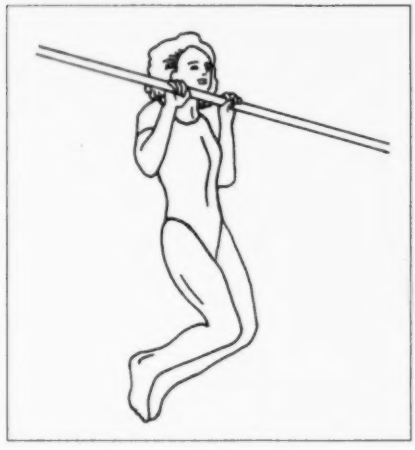
Gymnastics is a wonderful sport with many, many benefits for the gymnast, coach, and all participants. However, it is also a dangerous sport if safety is not foremost in the minds of all members of the gymnastics community. If everyone does their part to increase the safety of the sport, the children will be the main beneficiaries.

Source:

United States Gymnastics Federation Gymnastics Safety Manual. Edited by Gerald S. George. Published by USGF Publications Department, June 1985.

Strength and Conditioning for Women's Gymnastics

by Scott A. Cusimano



Scott A. Cusimano is the head coach of the Olympiad West Training Center, St. Louis, MO. He was the former assistant coach and strength advisor of the Texas Woman's University Gymnastics Program, and was a contributing author to three other athletic publications.

Women's gymnastics has evolved into an extremely demanding sport. The physical demands on the body can be extreme. Through strength training and conditioning, we not only improve performance, but more importantly, we assist in the prevention of injuries. There are many forms of strength training as well as many schools of thought concerning conditioning. In this article, principles of conditioning specifically for gymnastics, as well as methods of program design, will be discussed.

There are some key physiological concepts that should be considered when discussing conditioning. The first of these is the actual chemical breakdown. Simply put, for a muscle to change (i.e. grow), it *must* be pushed to *total muscle failure.* At the point of muscle failure, the chemical creatine stimulates the muscle to form myosin. Myosin is one of the contracting proteins within the muscle fiber. This contraction causes the muscle to produce more creatine and the cycle repeats. As the chemical ATP (myosin) is released and joins ADP, muscle growth is then possible.

The second most important concept is to complete a full range of motion. In every exerci concept of training is the rate of movement in the exercise. Some exercises call for a fast explosive movement (i.e. plyometrics). In plyometrics, the rate may vary according to the particular drill. However, many new studies have supported the fact that slow movement through full R.O.M. not only reduces that chance of injury, but also increases the percentage of muscle fiber recruitment. Either method applicable to a particular exercise has been productive.

The final key concept of strength training is hazard awareness. A few problems to be conscious of include injury due to poor technique, flexibility loss due to poor range of motion, and time and effort being wasted due to a lack of organization by the

supervisor or coach. The most important danger is the age in which overload principles are applied. Young athletes may train, but the overload principle (i.e. more resistance than body weight) should *not* begin until puberty is reached. There has been some recent research that states that even the *young* athletes can be exposed to overloading. However, many strength coaches and advisors still support the older concept because of the possibility of growth plate damage.

Three points of interest should be considered in conditioning gymnasts. The first of these is to simulate the movement of a skill in the exercise. By simulating the motion or action of a particular skill on any apparatus, there is greater potential for transfer. Moreover, the specific muscle groups are challenged. The second point of interest is the weak body part or parts. For example, females in general, have a naturally weak shoulder girdle. Therefore, the focus of most female gymnasts might be the upper body. This must be individualized to be productive, because each gymnast will vary in strength and weakness. The third point of interest in conditioning applicable to gymnastics is the time efficiency of the workout. It is very common that 80 percent of a gymnast's workout is on skill development, while 20 percent is applied to flexibility and strength. In order to have an edge, or in some cases simply to keep up with competition, this 20 percent must be increased (at least time efficiency must be achieved). Time efficiency can be reached by demanding quality not quantity. Training to total muscle failure for 1 or 2 sets with less recovery time should be more effective as well as efficient.

In designing a strength program, certain steps should be followed:

1. Establish areas of fitness:
   a. upper body;
   b. lower body;
   c. abdominal;
   d. endurance or cardiovascular training.
2. List exercises according to the body part (refer to outline #1).
3. List gymnast or team according to days and times spent in the gym. Example: A gymnast that comes three days a week will have a different workout than one that comes five days a week. This is because a muscle must have 36–48 hours to recover before being trained again.
4. List gymnasts or team according to strength capabilities (i.e. difficulty level or class).
5. Establish exercise rotation. Example: Organize how many days a week to train each body part.
6. Determine peaking process—One must consider when the athlete is expected to perform at the peak of the season or a particular event. As the quantity of conditioning decreases, the quality should increase.
7. Set goals—Goals should be developed in conditioning as they are in skill development.
8. Test—In order to measure improvement, some type of testing system should be developed.

When these eight steps are written down, the next step is to chart the workout by placing this information into a logical order according to each gymnast's needs. The following is an example of this procedure:

Workout Programs

1. Level 5 Gymnasts
   a. Days in the gym: Tues., Thurs., Sun. at 3 hrs./day.
   b. Exercise rotation: do total conditioning every workout due to day off recovery and only 3 workouts per week.

Mon	Tues	Wed	Thurs	Fri/Sat	Sun
Off	Upper body	Off	Same as Tues	Off	Same as Tues
	Lower body		with changes		with changes
	Abdominal		in exercise		in exercise
	Endurance		per body part		per body part

2. Level 8, 9 and 10 Gymnasts
   a. Days in the gym: Mon, Tues, Wed, Fri. and Sun; at 3 hrs./day.
   b. Exercise rotation: Split rotation due to consecutive days in the gym.

Mon	Tues	Wed	Thurs	Fri
Lower body	Upper body	Lower body	Off	Lower body
Lower abdominals (abs)	Upper abs	Lower abs		Lower abs
Endurance		Endurance		Endurance

Sat	Sun
Off	Upper body
	Upper abs

In conclusion, the female gymnast can not only become faster, stronger, and more efficient as an athlete, she can decrease the chance of injury through proper strength training. By taking the time needed to establish an effective conditioning program, one can produce positive results that both the coach and gymnast can be proud of.

Important Facts to Remember

1. Always use a full range of motion.
2. Have hazard awareness.
3. Simulate skill movement.
4. Focus on weak body parts.
5. Be time efficient.
6. Follow proper procedure in designing a program.

Outline #1

A. Upper Body:
   1. Bottom lift and slide (forward and backward)
   2. Push-ups
      a. regular
      b. wide grip
      c. incline
      d. deep set
   3. Flex hang
   4. Pull-ups (with negatives):
      a. wide grip behind head
      b. regular grip
   5. Chin-ups (with negatives)
   6. Shoulder hyper flexion
   7. Handstand push-ups:
      a. prone position "Catback" (on floor)
      b. tensions (prone stretch)
      c. reverse tensions (head up)
   8. Dips with negatives
   9. Shoulder external rotation (with theraband)
   10. Tubing (with bar)
      a. overhead
      b. standing and pull down
   11. Rope climb
      a. regular (with legs)
      b. without legs
      c. without legs and pull back up

B. Lower body:
   1. Plyometrics (only two times per week, two day split)
      Basic progression:
      a. lunge walk
      b. double leg jumps
      c. double leg hops
      d. exaggerated skips and bounding
      e. double leg hops backward
      f. single leg jumps
      *g. single leg hops
      *h. single leg runs
      *i. split jumps
      *j. switch leg jumps
      *k. double leg hop over box
      *l. box (mat) jump on (double leg)
      *m. box (mat) jump on (single leg)
      *n. box (mat) jump off 2-3 feet away only (½ body height)

2. Plie jumps
3. Jump and roll
*4. Jump and roll on one foot
5. Mat jumps
6. Wall sits
7. Isometric leg press and hold (3 stages)

*more advanced

C. Abdominal

Upper

1. knee raise on bar
2. crunches
3. toe touch on wall
4. bent knee sit-ups
5. negative chin-ups
6. lemon squeezes

Lower

1. leg flutters
2. leg scissors
3. twisting tuck-ups
4. V-ups with walk (bent or straight)
5. candlestick from low beam
6. toe raise to high bar

D. Endurance

1. Xs
2. gut drills
3. circle drill
4. circuit
5. repeat floor routine with 30-60 second recovery time
6. flic-flacs

Gymnastic Concerns

by Paul D. Turbedsky

Paul D. Turbedsky, Miami, Florida, is the director of the Health South Rehabilitation Center of Kendall. He holds a Master's degree in both Sports Administration and Physical Education Athletic Training. Paul currently provides athletic training service to area high school, amateur and professional sports groups.

This article will address a number of areas concerning gymnastics and athletics in general. It is hoped that the reader will experience an increased sense of awareness with respect to injury care and prevention, and will contact the experts for more information.

Concern:

Are there any ill effects on the gymnasts' bones and joints from the constant pounding they take day after day?

Response:

Basically no, provided proper technique, adequate strength and flexibility, and attention given to skeletal maturity are all followed.

Potential for injury increases when any of the above factors are lacking. For example, landing short coming out of a double back is common. The reasons for landing short vary. It could be that the girl's hip flexors are not strong enough to give herself enough lift and rotation to come out clean. She may be lacking some hamstring or low back flexibility preventing complete range of motion at these joints therefore contributing to a short landing. A coach or judge's eye can best critique flaws in technique involving anything from foot position and head tilt, to armswing and timing.

Coaches and gymnasts alike are often perplexed when the gymnast has been doing a skill cleanly, conditioning regularly, and using fairly new equipment, yet suddenly

heel or wrist pain develops. A careful examination of her skeletal maturity is now in order. The bones have growth plates which are open during the formative years and close as the skeleton fully matures in the late teens and early twenties. During periods of growth, as the bones lengthen and mature, these growth plates may become sensitive to the loads placed on them from the training session. Modification of the workout is necessary along with an examination by a physician. Decreased coordination and muscle strength may also accompany a growth spurt. A good coach will recognize this, modify the workouts, and counsel the athlete about the changes occurring in her body.

Keeping track of the girl's development on a regular basis can help in preventing injuries and aid in the recovery of them as well. Every six weeks, record each gymnast's height and weight. Also, make special note of any gymnastic related injuries in that six week period as well as any general health problems. Any unusual change in height and weight, with a decrease in performance can now be seen as possibly related factors and dealt with appropriately to minimize the severity and potential for injury.

Concern:

Why are girls involved in gymnastics often smaller than their classmates? Does all this training stunt their growth?

Response:

Young female athletes are observed to sexually mature and develop at a slightly older age than their peers. Some people attribute this late development to intense training and lower body fat. Researchers recently found that this smallness and late blooming are not from intense training, but due in part to variables such as nutrition, genetics, and stress. The concern that gymnastics stunts growth and delays sexual maturation should be viewed carefully, with more emphasis on the type of child that makes a good gymnast.

Concern:

Can strength training help the gymnast become stronger? Are there any risks involved since some of these girls have not as yet reached puberty?

Response:

Adult supervision is the key to adolescent and prepubescent strength training. Lack of supervision and safe equipment are the two greatest deterrents to even considering a strength training program. Prepubescents with muscle disease or recovering from an extremity being immobilized, and experiencing the associated muscle atrophy, have been shown to increase muscular strength through physical therapy.

Athletes following the proper strength training program can increase strength, maintain and improve flexibility, prevent injuries, decrease down time, and reduce the number of injuries compared to athletes that do not participate in any form of strength training.

A strength training program may utilize the athlete's own body weight, free weights, machines; or other devices to increase muscular strength beyond that associated with normal growth and development.

Strength training differs from weight training and weight lifting. Weight training uses free weights or machines as the resistance to develop strength. Weight lifting and power lifting are competitive sports where maximum weight lifted is the goal. Prepubescent muscular development should be limited to strength training.

Some reservations exist beyond the obvious benefits of strength training. It is an established fact that prepubescents can increase strength, improve motor function, and usually perform better than their opponents who do not. Does this mean that our children have to take up strength training to gain that competitive edge? There is also concern about the psychological effects of adding another organized program into the daily routine of our youth. We must be careful that we do not create a monster in our efforts to provide the best for our children.

A number of myths need to be set aside concerning strength training for prepubescents. It has been thought that prepubescents do not have the necessary hormones yet to make significant strength gains. However, it has been shown through rehabilitation that children with muscular diseases or recovering from injuries with associated muscle atrophy make strength gains.

Loss of flexibility as a result of strength training has been disproven. The fact is that flexibility is maintained and in many cases actually increased with strength training. A proper program includes flexibility and warm-up exercises before, during, and after a strength training session.

A supervised program should be performed only two or three times a week for only 20 to 30 minutes. Proper form must be mastered before any resistance is used. Then do one to three sets of 6 to 15 repetitions per set. Increase weight or resistance only 1 to 3 pounds after the child can do 15 repetitions easily and with good form.

Concern:

A great deal has been written about nutrition and vitamin supplements. How much is too much and are all the pills and powders necessary?

Response:

We typically see a young girl downing a diet soda and munching on a candy bar between school and the gym to give herself a blast of energy. While the diet soda is only one calorie and the candy bar's sugar boosts her feeling of energy to continue on with the day, it is a *terrible* snack. Carbonated beverages, especially diet soft drinks, actually draw fluid away from the cells — dehydrating the body. The candy bar floods the bloodstream with a high dose of sugar creating an artificial high. To correct the sudden high blood sugar level, the body releases insulin to lower the blood sugar level causing a let down feeling or sense of tiredness.

A snack high in carbohydrates would be of most benefit to any athlete. Foods such as fruits, cheese, crackers, and drinks such as fruit juices, water, or electrolyte solutions, provide the body with the proper fuel for exercise.

An athlete's diet should consist of 50—65 percent carbohydrates, 15—20 percent proteins, and the remaining amount in fats. Any number of charts suggest that a gymnast should consume on a daily basis anywhere from 3,000 to 6,000 calories. Foods should be varied in selection. Meals should never be skipped — including planned snacks. Generous amounts of water should be taken in daily. A balanced and varied eating plan makes for a healthy person, avoiding the need for any vitamin supplement.

Vitamins should only be taken when a nutritional deficiency exists or when recovering from an injury and under the care of a physician. A balanced and complete meal plan provides all the necessary nutrients for tissue growth and repair and all bodily functions. Any vitamins consumed above and beyond what the body can use or store are eliminated from the body.

Vitamin C and a multi-vitamin are often suggested by many physicians to help the body restore itself when an injury occurs. The consumption of vitamins beyond the RDA will not improve athletic performance nor increase strength or endurance to any significant level. The old adage that if a little is good then more must be better does not apply here.

The same holds true for the various protein powders and amino acid pills. The typical American diet already provides at least twice the RDA amount of protein. Any excess protein consumed is used for energy provided there are not any carbohydrates available to convert it to fat and store it as fat. Proteins also require large amounts of water to be metabolized properly.

Editor's Note:

Above article by Mr. Turbedsky is based on his hands-on experience as a sports trainer. In addition, his conclusions have been formulated through the voluminous reading of the most current text books in the field, the monthly magazine *Physicians Sports Medicine*, the quarterly journal, *Athletic Training*, and research publications from the *American College of Sports Medicine*.

Mr. Turbedsky welcomes and encourages any questions to be directed to:

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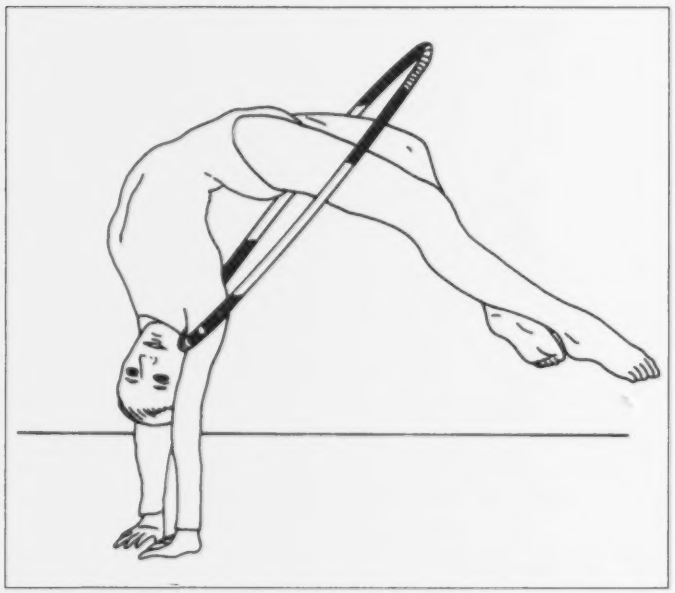
Rhythmic Gymnastics

by Nora Hitzel

Nora Hitzel, Indianapolis, Indiana, is a charter member of the USGF Rhythmic Gymnastics Program Committee and was the first coach of the U.S. International Rhythmic Team. Nora has been a choreographer and editor of past rhythmic compulsories and is currently serving as the Rhythmic Gymnastic Program Administrator for the USGF.



Rhythmic gymnastics, the sister sport of artistic gymnastics, is a relatively new competitive sport for girls and women in the United States, but has for many years been a popular sport in European and Asian countries.

Each rhythmic gymnastics routine requires the athlete to execute a variety of body movements in coordination with the skillful handling and manipulation of hand apparatus. Each routine is performed to music and judged according to a Code of Points. Gymnasts are encouraged to work as all-around athletes. All-around events include the rope, hoop, ball, clubs, and ribbon. Each piece of apparatus has a number of characteristic skills:

ROPE—swings, circles, mills, tosses and catches, skips, leaps, and jumps, with the open rope or with the folded rope.

HOOP—Swings, rolls, tosses and catches, spins passing through and over the hoop, rotations of the hoop on the floor, and rotating the hoop around the hand and other parts of the body.

CLUBS—swings, large circles, small circles, mills, tosses and catches, rolls along the body, and rhythmical tapping.

BALL—waves, circles, tosses and catches, movement with the ball balanced on the hand, bouncing, and rolling the ball on the floor and along parts of the body.

RIBBON—snakes, spirals, circles, tosses and catches, and figure-eight movements.

Rhythmic gymnastics is an excellent activity for teaching fundamental rhythmic skills and developing the attributes that are perfect stepping stones for other sports:

hand-eye and foot-eye coordination, balance, strength, muscular endurance, and agility.

For schools, clubs, park districts, etc. a rhythmic program offers a great oppportunity to provide a low cost/high participation physical activity.

For the athlete who desires to become a competitive rhythmic gymnast, a system is in place.

The United States Rhythmic Gymnastics Program

The United States Gymnastics Federation has developed a rhythmic program for all levels of ability. Typically rhythmic gymnasts move from instructional classes into the developmental competitive program. A compulsory routine program is available for Class IV (beginning) through Class II levels. Each program features a video, written text, and music cassette. Gymnasts compete in age-group divisions defined as Children, Junior and Senior. After progressing through the development program, a gymnast can move up to the Class I level which requires that she perform optional routines only. From this Class I level, girls qualify to the USGF National Championships. At this annual competition, the U.S. National Team is chosen. National Team members represent the U.S. in rhythmic competitions throughout the world.

Competition is provided at the local, State, Regional, and National levels through a network of USGF sanctioned events. In 1988 the YMCA held its first Rhythmic National Championship.

The International Rhythmic Gymnastics Program

Girls have been competing in the sport internationally since the early '60s. The sport made its Olympic debut as a medal sport in 1984. The United States, along with 19 other countries, qualified gymnasts to the 1988 Olympic Games. The gymnasts from the Soviet Union captured the gold and bronze medal. A Bulgarian athlete won the silver medal.

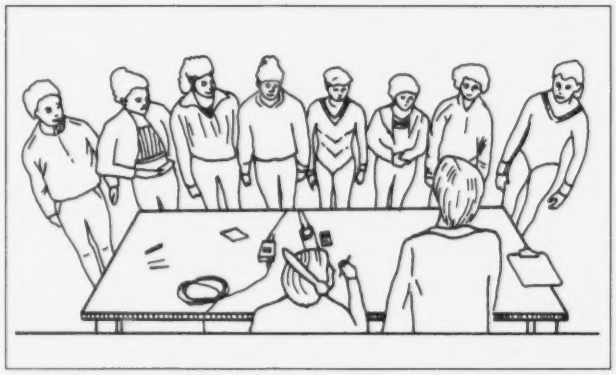
Rhythmic gymnastics is one of the most fundamental, challenging, and exciting of all individual sports for girls and women. For more information about program and materials write to:

The United States Gymnastics Federation
Rhythmic Gymnastics Program
Pan American Plaza
201 South Capitol Avenue
Suite 300
Indianapolis, IN 46225

Feelin' Good About Judging

by Mimi Murray

Mimi Murray, Ph.D. is a professor at Springfield College in Massachusetts. She has been involved in teaching, coaching, and lecturing gymnastics since the 1960s. Mimi has travelled throughout the world as a representative for women in sport. She is the editor and author of many articles and publications relating to women in sport.



There are a decreasing number of women who are coaching and officiating girl's and women's sports, and the membership of NAGWS is committed to stemming this flow. The officials of women's gymnastics however, are primarily women, one of the few sports in which this is still true, although these numbers, too, are decreasing. The National coaching staff for the 1988 Olympics, even though competent, was changing and transient for the year prior to the Games and was mostly male. The selection of the coaches was rife with controversy, resulting in much confusion for our athletes. Fortunately, our women rallied and performed better than ever. What about the National governing body, USGF (United States Gymnastics Federation)? There is an ongoing concern that the representation of women in decision-making roles, and the allocation of program funds are not in proper proportion to the number of female participants.

The women who continue to judge do so because of their skills, talents, perseverance, abilities, and because they have been mentored by other women judges. The role modeling of our female judges is even more critical today because we have fewer and fewer women coaching. Through these women judges as role models, the girls now competing in gymnastics can aspire to be judges. Hopefully, the women who are judging will continue to mentor aspiring judges and network with current judges so that young gymnastic enthusiasts will be able to follow in the footsteps of our outstanding American judges. We do need to protect and reinforce those who are currently judging while encouraging others to "join the ranks." Judging can be one of the most rewarding and prestigious professions in women's sport.

How can we make the judging function an even more positive personal experience? First, we can acknowledge the impact judges can and do have upon the sport, the participants, and the coaches. Judges should feel a pride in the nobility of their effort and the importance of the judging role for it is one of critical leadership. There is a myth that women can't be effective leaders and are unable to make decisions. Women have been, are, and will continue to be good leaders. Good leaders, charac-

teristically, are able to assume many roles and traditionally women have been most successful in various roles. Women who judge frequently have two other full time jobs, one inside and the other outside of the home. Their responsibilities may be as divergent and different as teacher, judge, spouse, mother, coach, confidant, counselor, local taxi driver, laundress, cleaner, gourmet cook, shopper, mediator, exchequer, and many others. Women, thus, can successfully do many tasks at one time.

Women in gymnastic judging have helped to inject a better quality of life, freedom and equality into the sport, an accomplishment which is most pleasing and satisfying.

People who feel confident perform their tasks better than those who lack confidence (self-efficiency). There are many factors which could impact upon a gymnastic judges' feeling of self-worth and competence. The judging of gymnastics, by its nature, is difficult and stressful because one must make a subjective/objective evaluation of another's performance. These decisions are frequently fraught with concerns about fairness and can be evidenced by second guessing thoughts such as: "Was that the right score?" "Wonder why my score is lower?"; or "I hope I didn't miss anything." Second guessing or the "what if's" can cause the doubting of one's competence.

In addition to the arduousness of the task of judging, recently there have been allegations of bribery and bias in international judging, leadership and control battles in the women's programs of the USGF, and the overly assertive coaching behavior of many coaches who attempt to intimidate judges so as to influence their gymnast's scores. How can judges get past those problems, the questioning of their own value, and their sports' ethical value? The crucial part of successful judging is for judges to train and trust themselves. By learning the rules, difficulties, deductions, and educating one's eye, judges train themselves. Trusting oneself and what one has trained is part of the confidence necessary to accomplish with satisfaction the judging task. Typically, many women lack self-confidence.

To enhance confidence, judges should be very aware of and note their own performance improvements. The judging system in our country is unique because the judge can move forward from one level to the next through study, experience, and achievement. These accomplishments are noted and rewarded. This is helpful for judges because they can improve through goal accomplishment or it is the result of goal setting, which is a confidence enhancing technique. Maximizing success and minimizing failures is another important step in learning to trust oneself.

Confident judges are not intimidated by the ranting and raving of some coaches in an effort to garner higher scores for their gymnasts. By not succumbing to this form of intimidation, a judge can feel empowered and empowerment adds to or becomes confidence.

Empowering others is a way of empowering self. This can occur by eliminating denigrating and demeaning language about other judges, coaches, and gymnasts. Not listening to another's debasing comments is a part of this process. Sexist comments, which abound in many gyms, do not help an individual feel good about herself and must not occur.

The constant and continuous monologues in which our minds indulge is self-talk. Controlling self-talk, making it positive, is another direct way to increase our feelings of self-worth. Because women have been socialized to place less value on themselves, their opinions, or decisions, self-talk is crucial to improving individual self-worth. If self-talk is negative, ("What if I missed a difficulty?") it becomes "work at worry,"

which is counter-productive, and a self-fulfilling prophecy for failure. Also, too often women listen to the negative and do not hear the positive . . . we need to change that. When giving another judge a compliment, if her response is to ignore the positive, urge her to listen again and again to the positive.

Staying in the present, this day, this meet, this gymnast, this score, and not last week's meet, or the Nationals in a few weeks, is a very helpful way to stay focused, thus adding to one's sense of worth.

Another cause of lower confidence is irrational thinking. Some forms of irrational thinking judges can exhibit are perfectionism (nothing is perfect); catastrophizing (each score or meet is the most important thing in one's life); and blaming (casting the control of one's life on another . . . we need to take full responsibility for our own decisions). Irrational thought patterns should not be a part of our thinking and feeling if we wish to feel good about ourselves. Another technique for esteem enrichment is to identify one's own strengths, including one's feminine skills and qualities, while having the courage to be successful, knowing one can be and is capable. We need to begin to make positive statements about ourselves and others.

By accepting one's imperfections, one can gain confidence, resulting in a calmness in the face of criticism (essential for judges). It is also helpful to learn to focus inwardly instead of externally. If one is very stressed, inner anxiety can be controlled by practice in breathing and concentration techniques.

In summary:

The job of judging gymnastics is not an easy one but it can be made easier, more successful, fulfilling, and self-satisfying through:

1. Understanding and accepting the pressures of judging and the current atmosphere in regard to unethical practices in our sport.
2. Standing tall and being proud of the integrity and heritage of the judges of women's gymnastics in the U.S.
3. Lobbying for changes in the higher echalons of leadership for greater representation for women's programs.
4. Mentoring aspiring judges.
5. Believing that women are and can be great leaders/judges.
6. Continuing to emphasize the feminine qualities women judges bring to the sport.
7. Increasing self-esteem by:
   a. Training and trusting
   b. Eliminating sexist language
   c. Maximizing success — minimizing failure
   d. Utilizing positive self-talk
   e. Eliminating irrational thinking
      1. Perfectionism
      2. Catastrophizing
      3. Blaming
   f. Empowering self and other women
   g. Learning to focus internally
8. Learning to cope with anxiety associated with judging through deep breathing and relaxation if necessary.

Women should continue to approach their leadership roles as judges with courage, tolerance, and humor. Both men and women in our sport need to address gender stereotyping and communicate about it for its harmfulness to all.

Maslow has said good leaders are humble, flexible, and have the ability to make difficult decisions. You are and do all of these and more in your judging and life. The judges of women's gymnastics in the United States are exceptional. As a member of this respected and revered group you should be filled with the esteem that others who know this sport view you.

Application of Changes and Clarification in Federation of International Gymnastics (FIG) Code of Points

by Delene Darst

Delene Darst is the president of Judges' Certification. She was the technical chairman of the USGF Women's Committee from 1976-1984 and from 1977 to 1987 she was the U.S. Delegate to the FIG Technical Assembly. Ms. Darst has been judging gymnastics for 27 years and has coached high school, college, and private club teams. She served as technical director for the 1984 Los Angeles Olympic Games. She judged World Championships in Bulgaria, France, Soviet Union, Hungary, and Canada. Most recently, she was the USA judge for the 1988 Olympic Games in Seoul, Korea.

The following summarizes what the requirements are for judging optionals in each of the four Olympic events: vault, uneven bars, balance beam, and floor exercise. This information supplements the FIG Code of Points, the USGF Rules and Policies for Competition, and the USGF Women's Technical Committee Minutes and Bulletins, all of which are required materials and publications for effectively judging and training gymnasts for a specific event. The USGF Elite Program follows the USGF Rules, which in most cases are the same as FIG Rules.

The exercises are composed of elements that have different difficulty values. Their values are divided as follows: A-Part-part with easy difficulty value; B-Part-part with medium difficulty value; C-Part-part with superior (high) difficulty value; and D-Part-part with superior (high) difficulty value.

Requirements of the Exercise for Optional Routines (FIG and USGF unless otherwise indicated), are effective July 1, 1989.

Note: This material is subject to changes following the USGF National Coaches Congress in September 1989.

FIG Code of Points 1989-92

REQUIREMENTS OF THE EXERCISE

Competition IB		
3 A	@ .2 = 0.6	
3 B	@ .4 = 1.2	
2 C (1 Natural)	@ .6 = 1.2	
Value Parts	3.0	(8 counting value parts)
Competition II		
1 A	@ .2 = 0.2	
2 B	@ .4 = 0.8	
2 C (Natural)	@ .6 = 1.2	
1 D -Value Raised D Possible	= 0.8	
Value Parts	3.0	(6)
Competition III		
2 B	@ .4 = 0.8	
1 C (Natural)	@ .6 = 0.6	
2 D - Value Raised D's Possible	@ .8 = 1.6	
Value Parts	3.0	(5)

OPTIONAL BREAKDOWN

VALUE POINTS		3.0
BONUS POINTS	TOTAL	0.4
Originality (elements/connections)	maximum	0.3
Additional D (Natural or Value-Raised D-USGF)	maximum	0.1

Bonus points are not awarded if one of the following occurs:

- a fall (all apparatus)
- an intermediate swing on uneven bars (from 0.25 P)
- a medium fault (from 0.25 P) on balance beam and floor
- with repetition; also if this element is executed from another connection preceding or following
- a D which is needed to replace an A, B, or C value part does not receive bonus credit.

COMBINATIONS • Progressive distribution of elements, mount/dismount corresponding to the value of the exercise • Diversified, composition through the various elements, value parts, and connections • Space and Direction • Tempo and Rhythm	1.5
EXECUTION • Technique, Amplitude and Posture • Exactness of phases during turns around several axes • Large flight height during acrobatic and gymnastic leaps/jumps, flight elements on uneven bars, dismounts and in the second phase at horse vault • Sure/steady landings • Perfectly sure performance	5.1
TOTAL	10.0P

Vault

Competition IA
- Compulsory Vault—may be performed twice
- Balk Permitted

Competition IB & II
- 2 Vaults—Same or Different
- Better Vault Counts
- 1 Balk Permitted

Competition III
- 2 Vaults—Different Vault Groups
- Average score arrived at by averaging scores of both vaults

Specific Apparatus Deductions

First Flight Phase	
1. Form break (body, legs)	up to 0.2 each (USGF)
2. Technique not corresponding to the character of the vault	up to 0.3
3. Prescribed LA turn not completed	up to 0.3
Support Phase	
1. Form break (body, legs)	up to 0.2 each (USGF)
2. Poor technique in support	up to 0.2
Second Flight Phase	
1. Form break (body, legs)	up to 0.2 each (USGF)
2. Prescribed turn begun too early or not completed	up to 0.3 each
3. Insufficient height/length	up to 0.5 each (USGF)
4. No stretch/opening of the body before landing	up to 0.3

5. Insufficient tuck, pike, or stretch	up to 0.2
Landing	
1. Deviation from straight direction	up to 0.3
2. Spotting assistance during landing	0.5
3. Unsure landing	
slight unsureness	up to 0.1
moderate unsureness	up to 0.3
Remaining Deductions	
1. Compulsory vault in Competition IB, II, or III	Invalid
2. Compulsory vault does not correspond to the required execution	Invalid
3. More than one preparatory element before the arrival on springboard-round off entry vaults	Invalid
4. Spotting assistance during vault	Invalid
5. Run-approach without execution of the vault	
• with touch on springboard or horse	Invalid
• without touch on springboard or horse	
• one fourth attempt in competition IA, IB, II, or III	0.5 (HJ)
6. Insufficient dynamics during the vault	up to 0.3
7. Incorrect or no vault number	0.3 (HJ)
8. Competition III	
• one vault only—average score of the performed vault minus 1.0	
• two vaults from same vault group—deduction from the final average score (average of both vaults)	1.00 (HJ)

GROUP OF VAULTS

Group	A—Up to 9.0	B—9.10 to 9.50	C—9.60 to 9.90	D—10.00
#1—Handsprings, Yamashitas, Cartwheels with or without LA turn	1.01 Front Hspg. or Yamashita 8.80 1.02 ¼ On ¼ Off 8.80 1.03 Hspg. or Yamashita ½ 9.00	1.30 ½ On ½ Off 9.20 1.31 ¼ On ¾ Off 9.30 1.32 ¼ On 1¼ Off 9.40 1.33 Hspg. or Yamashita 1/1 Twist 9.50 1.34 ½ On 1/1 Off 9.50	1.60 Hspg. or Yamashita On 1½ Twist 9.60 1.61 1/1 Hspg. Off 9.60 1/1 on ½ Off 9.70 1.62 ½ On 1½ Off 9.80 1.63 1½ On ½ Off 9.90 1.64 Hspg. or Yamashita 1/1 On 1/1 Off 9.90	1.90 Hspg. 2/1 Twist 1.91 1½-1/1 Off
#2—Saltos forward with and without turns in the LA axis and cuervo with and without LA axis turn			2.60 HS 1½ Fwd. Tuck 9.90 2.61 HS On-½ turn and tucked 1½ salto bkwd Off 9.90	2.90 HS 1½ Fwd. Pike 2.91 HS 1½ Fwd. Tuck with ½ turn 2.92 HS 1½ Fwd. Pike with ½ turn 2.93 HS 1½ Fwd. stretched with ½ turn 2.94 HS 1½ Fwd. Tuck with 1/1 turn 2.95 ½ On-½ Salto Fwd. Tuck Off 2.96 Salto Fwd. On-Optional 2nd. Flight 2.97 Salto Fwd. On-Salto Fwd. Off 2.98 HS 1/1 On and Salto Fwd. Off 2.99 Salto Fwd. On and HS 1/1 Off 2.100 HS On-2½ Front Salto Off 2.101 HS-½ turn and 1½ Salto bkwd Off (piked cuervo) 2.102 HS-½ turn and tucked 1½ salto bkwd with an additional LA turn off 2.103 HS-½ turn and piked 1½ salto bkwd with an additional LA turn off

GROUP OF VAULTS—*continued*

Group	A—Up to 9.0	B—9.10 to 9.50	C—9.60 to 9.90	D—10.00
#3—Saltos backward with and without turns in LA axis		3.30 Tsuk Tuck 9.40 3.31 Tsuk Pike 9.50	3.60 Tsuk Stretched 9.70 3.61 Tsuk tucked with 1/1 turn 9.90	3.90 Tsuk Pike with 1/1 3.91 Tsuk Stretch with 1/1 3.92 Tsuk Tuck with 1½ 3.93 Tsuk Pike with 1½ 3.94 Tsuk Stretched with 1½ turn 3.95 HS 1½ On-Salto bkwd. Off 3.96 Tsuk with 2½ Salto Tucked 3.97 Tsuk with 2½ Salto Piked
#4—Round off vaults (only allowed at Elite Level competition)		4.30 Round off Bkwd Tuck 9.40 4.31 Round off Bkwd Pike 9.50	4.60 Round off Salto Bkwd. Stretched 9.70 4.61 Round off tucked salto bkwd with 1/1 turn 9.90	4.90 Round off flic-flac Pike Salto with 1/1 Turn 4.91 Round off flic-flac 1/1 Salto stretched 4.92 Round off flic-flac stretched salto bkwd. with 1½ turn 4.93 Round off flic-flac stretched salto bkwd. with 2/1 turn 4.94 Round off flic-flac with 1/1 turn on-tuck salto off 4.95 Round off flic-flac with 1/1 Turn on-pike salto off 4.96 Round off flic-flac with 1/1 turn on-stretched salto off 4.97 Round off flic-flac with 1/1 turn on-1/1 turn off 4.98 Round off flic-flac with ½ turn on pike fwd salto off

Uneven Bars

VALUE PARTS 3.0

Competition IB		
3 A	@ .2 = 0.6	
3 B	@ .4 = 1.2	
2 C (1 Natural)	@ .6 = 1.2	
Value Parts	3.0	(8 counting value parts)
Competition II		
1 A	@ .2 = 0.2	
2 B	@ .4 = 0.8	
2 C (Natural)	@ .6 = 1.2	
1 D -Value Raised D Possible	@ .8 = 0.8	
Value Parts	3.0	(6)
Competition III		
2 B	@ .4 = 0.8	
1 C (Natural)	@ .6 = 0.6	
2 D -Value Raised D's Possible	@ .8 = 1.6	
Value Parts	3.0	(5)

VALUE RAISING FORMULAS

Increase in value parts due to combinations:

Direct means: without pause, intermediate swing or beat on LB from inside

1. B + B = B + C
2. C + B = C + C
3. C + C = C + D

   if there occurs:

   - a directional change—LA turns only
   - a hop to another grip position on same bar (with distinct visible flight phase)
   - a flight from HB over LB or to a handstand on LB
   - a flight from LB to HB

4. If more than 2 value parts (B,C,D) are directly connected then the value of the second and each succeeding element raises *one level.* Original value determines whether you continue to raise.

   B + B + B = B + C + C

   C + B + B = C + C + C

*C + B + C = C + C + C Exception: (Remains C)
C + C + C = C + D + D (with conditions)

5. A value raised C as a connection cannot lead to D value raising.
6. Elements devalued to a listed code element can value raise. An element devalued to an unlisted element cannot be used to value raise another directly connected element.
7. Mounts and dismounts are included for value raising.

Originality	0.3
Additional D (Natural)	0.1

BONUS POINTS

Originality There are specific elements listed in the FIG Code and USGF Supplement to the Code for +.2 and +.1 credit. Total amount of originality category = 0.3.

The USGF Junior Olympic and Elite Program In addition to the current possibilities for earning 0.3 bonus points for originality (0.1 and 0.2) via performance of a specific list of skills, the United States will expand the originality category to reward the performance of creative, unique, high-level skills and combinations that are similar to elements already listed as having +0.2 or +0.1 value (not FIG).

Guidelines for awarding +.2 and +.1 based on this concept (See Principles for Original Connections): Single elements of C or D value will be considered for +0.1 or +0.2.

Additional D "D" elements used to replace a "C" or "B" element will not count for Bonus. If a fall occurs while performing a D element, bonus will not be awarded.

FIG Principles for Original Connections on Uneven Bars (Mount and dismount included) At least two elements either with flight phase or long axis turn of at least 180 degrees in each element from:

C + C = .10
C + D = .10
D + C = .10
D + D = .20

COMPOSITION OF THE EXERCISE 1.5

Should have diversified composition through:

Execution under the low and over the high bar
Execution outside and between the bars
Elements with great amplitude
Several bar changes
Several directional changes (any LA turn counts as directional change. Mount and dismount are included).

To be avoided are:

Additional supports
Interruption in swing through concentration pauses, intermediate swings, or intermediate bounces
Predominance of close bar execution

SPECIAL REQUIREMENTS

1. The exercise must consist of at least ten elements.*
2. Only four elements in consecutive order may be performed on the same bar; the fifth element must lead to a bar change, touch another bar (HB or LB), or be the dismount. The kip-cast backward to handstand (B-, C-, or D-handstand) is calculated as one element.
3. Two elements (minimum) are to be performed on the LB.
4. The exercise must have two bar changes (minimum). (Elements with grip change from the HB to LB or reversed will be counted on the bar on which the main action-movement is performed.)
5. The exercise must contain at least one flight element (from B).
6. The dismount must be B (minimum).

Deductions for absence of Special Requirements — each 0.10P

*Exerything counts as an element which is listed in the Table and has a number.

SPECIFIC APPARATUS DEDUCTIONS

1. Mount without value (easier than A).	0.10P
2. One-sided choice of elements (at least from three different groups)	up to 0.20P
3. Predominance of close bar execution	up to 0.20P
4. Execution predominantly in one direction (Only LA turns, including mount and dismount. Must occur in an element from the Table and can be two (2) 180 degrees or one (1) 360 degrees.	up to 0.20P
5. Insufficient bar changes toward the inside and outside of the bars	0.10P
6. Progressive distribution of elements	up to 0.20P (USGF)
7. Insufficient amplitude in an element	up to 0.20P

EXECUTION

Technique, Amplitude and Posture

A. Deductions applicable to bars: (general)

1. Additional support on apparatus, with hands, feet or body	0.50
2. Intermediate swing (extra cast)	0.30
3. Touching apparatus or the floor	
• lightly	up to 0.10
• moderately	up to 0.30

B. General Faults of execution as listed in Code of Points

BALANCE BEAM

VALUE PARTS 3.0

Competition IB		
3 A	@ .2 = 0.6	
3 B	@ .4 = 1.2	
2 C (1 Natural)	@ .6 = 1.2	
Value Parts	3.0	(8 counting value parts)

Competition II		
1 A	@ .2 = 0.2	
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1 D -Value Raised D's Possible	@ .8 = 0.8	
Value Parts	3.0	(6)

Competition III		
2 B	@ .4 = 0.8	
1 C (Natural)	@ .6 = 0.6	
1 D -Value Raised D's Possible	@ .8 = 1.6	
Value Parts	3.0	(5)

VALUE RAISING FORMULAS

Increase in value parts due to direct connections of difficulties:
Direct means: performance of elements/connections
—without pause
—without an extra step
Value raising begins with *B* + *B* connections and with mount and dismount connections
—From the acrobatic group only elements with flight phase can be value raised.
—Acrobatic B elements without flight phase lead to value raising only as pre-connections if the following elements are:
—Acrobatic B or C with flight phase or
—Gymnastic B or C elements.

1. B + B = B + C
2. B + C = B + D
3. C + B = C + C
4. C + C = C + D
5. D + C = D + D

For a series of 3 or more elements beginning with B + B + B, and 2nd and 3rd elements will raise one level.

6. B + B + B = B + C + C
7. C + C + C = C + D + D
8. B + C + C = B + D + D
9. Elements requiring 2 second hold cannot be considered for value raising.

BONUS POINTS	**TOTAL** 0.4
Originality	0.3
Additional D (Natural)	0.1

Bonus Points:

Originality There are specific elements listed in the FIG Code and USGF Supplement to the Code for +0.2 and +0.1 credit. Total amount of originality category = 0.3.

Guidelines for awarding +0.2 and +0.1 based on this concept

a. Single element of C or D value will be considered for 0.1 or 0.2.
b. Combinations of acrobatic elements with a minimum of B + B will be considered for 0.1 or C + C (except free aerials = +0.1) for 0.2.
c. Combination of gymnastic elements, with a minimum of C + C will be considered for 0.1 or 0.2.

The USGF Junior Olympic and Elite Program In addition to the current possibilities for earning 0.3 bonus points for originality (0.1 and 0.2) via performance of a specific list of skills, the United States will expand the originality category to reward the performance of creative, unique, high-level skills and combinations that are similar to elements already listed as having +0.2 or +0.1 value (not FIG).

Additional D "D" elements used to replace a "C" or "B" element will not count for bonus. If a fall occurs while performing a D element, bonus will not be awarded.

FIG principle for original connections on beam (mount and dismount included):

1. At least 2 saltos directly connected with directional change from:
   B + C = .10 (may be C + B also)
   C + C = .20
2. At least 2 forward elements directly connected, one of which is a salto from:
   B + C = .10 (may be C + B also)
   C + C = .20
3. All free (aerial) walkovers and cartwheels directly connected from:
   C + C = .10
4. Acrobatic direct connections of at least 3 elements with flight phase:
   —with 1 C i.e. B + B + C= .10 (exception: flic-flac, flic-flac, layout)
   —with several C i.e. B + C + C = .20
   —with D i.e. B + B + D = .20
5. Gymnastic-Acrobatic direct connections or reversed of at least 2 elements:
   —from B + B and B + C = .10
   —with several C i.e. C + C = .20
   —with D i.e. B + D = .20

6. Gymnastic direct connections of at least 2 elements:
   —from C + C = .10
   —with several C = .20
   —with C + D or more difficult = .20

COMPOSITION OF THE EXERCISE 1.5

Creation of high points (peaks) through the direct connections (series) of:

- 2 or several acrobatic elements
- 2 or several gymnastic elements
- 2 or several acrobatic and gymnastic elements (mixed series)
- Leaps or jumps, turns and other gymnastic elements
- Harmonious change between the element groups, in particular by changing of gymnastic and acrobatic elements
- Variation of rhythm between faster and slower movements
- Performance of elements in the forward, sideward, and backward movement and in a side, cross and also oblique position to the apparatus
- Change between working near and far from the beam (level changes)
- Dynamic construction of the exercise

SPECIAL REQUIREMENTS

1. One acrobatic series of two or several elements, one of which has flight phase.
2. One gymnastic series of two or several elements (Minimum A)
3. One mixed series of two or several elements (gymnastic/acrobatic) (Minimum A)
4. One gymnastic turn of 360 degrees on one leg
5. One gymnastic leap or jump with great amplitude
   Number 4 and 5 may also be a component of the gymnastic series
6. One element/connection close to the beam
7. B (minimum) dismount

Absence of Special Requirements — deduction each time of 0.10P

FLOOR EXERCISE

VALUE PARTS 3.0

Competition IB		
3 A	@ .2 = 0.6	
3 B	@ .4 = 1.2	
2 C (1 Natural)	@ .6 = 1.2	
Value Parts	3.0	(8 counting value parts)

Competition II		
1 A	@ .2 = 0.2	
2 B	@ .4 = 0.8	
2 C	@ .6 = 1.2	
1 D -Value Raised D Possible	@ .8 = 0.8	
Value Parts	3.0	(6)

Competition III		
2 B	@ .4 = 0.8	
1 C (Natural)	@ .6 = 0.6	
1 D -Value Raised D's Possible	@ .8 = 1.6	
Value Parts	3.0	(5)

VALUE RAISING FORMULAS

Increase in value parts due to direct or indirect connections of difficulties:

Direct means: —without a pause between the landing of the first and the take-off of the second element
—without an extra step, that means the free leg of the first element is placed immediately as the stand- or take-off leg for the following element

The value raising on floor begins with

1. Acrobatic A—elements with flight phase without hand support
2. Acrobatic B—elements with flight phase and hand support
3. Gymnastic B—elements

Value raising occurs with:

A. Acrobatic elements with flight phase without hand support in same series from A (direct or indirect)
B. Gymnastic series or acrobatic flight elements with hand support from B (directly only):
   1. A + A = A + B
   2. A + B = A + C
C. Mixed series:
   —acrobatic elements from A without hand support and with flight phase
   —acrobatic elements from B with flight phase and hand support
   —gymnastic elements from B
D. The value raising from C to D begins with C + C

EXCEPTIONS:

—with a series of three *directly* connected acrobatic value parts, the value raising to D begins with B + B + C = B + C + D
—with a series of three *indirectly* connected acrobatic value parts, the value raising to D begins with C + A + C = C + B + D

E. Three element series:
   1. A + A + A = A + B + B
   2. A + B + A = A + C + B
   3. A + B + B = A + C + C
   4. B + B + B = B + C + C

BONUS POINTS	**TOTAL** 0.4
Originality	0.3
Additional D (Natural)	0.1

Bonus Points:

Originality There are specific elements listed in the FIG Code and USGF Supplement to the Code for +0.2 and +0.1 credit. Total amount of originality category = 0.3.

Guidelines for awarding +0.2 and +0.1 based on this concept (not FIG) (See Principles for original connections).

a. Single element of C and D value will be considered for 0.1 and 0.2.

The USGF Junior Olympic and Elite Program In addition to the current possibilities for earning 0.3 bonus points for originality (0.1 and 0.2) via performance of a specific list of skills, the United States will expand the originality category to reward the performance of creative, unique, high-level skills and combinations that are similar to elements already listed as having +0.2 or +0.1 value (not FIG).

Additional D "D" elements used to replace a "C" or "B" element will not count for bonus. If a fall occurs while performing a D element, bonus will not be awarded.

The Principles for Original Connections on floor remain valid:

1. In direct acrobatic connections of at least 2 saltos:
   (A or B) + D = .10
   C + D (or reversed) = .20
   Several saltos (A/B/C) + D (or reversed) = .20
2. Direct acrobatic connections of: (also with hand support)
   From B + B + C = .10
   More difficult i.e. B + C + C = .20
   D + B + C, etc. = .20
3. At least 2 saltos directly connected in a line (back and forth) or in the same direction with directional change in one salto from:
   B + B = .10
   B + C (or reversed) i.e. more difficult = .20
   C + A = .10
   D + A i.e. more difficult = .20
4. Gymnastic direct connections of at least:
   3 C = .10 or
   More difficult C + C + D = .20
5. Gymnastic-acrobatic connection (or reversed) of at least 3 elements which can be indirectly (only acrobatic) and also directly (gymnastic-acrobatic)

connected:
From C + C + B = .10
More difficult i.e. C + C + C = .20

6. Dismount series:
D salto = .10
D salto with one or several saltos within a series (A, B, or C) = .20

COMPOSITION OF THE EXERCISE 1.5

Creation of high points through:

- Acrobatic series with at least one or several saltos
- Acrobatic/gymnastic series with great amplitude
- Gymnastic series with great amplitude
- Harmonious change between gymnastic elements and acrobatic elements (jumps)
- Dynamic change between the slower and faster movements, corresponding to the character of the music
- Harmony of the music and movement
- Versatile use of the floor area—original directional patterns
- Change between movements executed near to and far from the floor
- Change between movements forward, sideward, and backward and movements in place.

SPECIFIC APPARATUS DEDUCTIONS

1. One-sided choice of gymnastic or acrobatic elements/ connections	each 0.10P
2. Insufficient use of the floor area	0.10P
3. Insufficient change of elements near to and far from the floor	0.10P
4. Absence of music or music with voice (song)	0.50P
5. Music and movement not in harmony	up to 0.20P
6. More than four measures of introduction	0.10P
7. Stepping outside of the floor area (outside of the white line that belongs to the floor area)	each 0.10P
8. Progressive distribution of elements	up to 0.20P
9. Gymnastic elements not up to the level of acrobatic elements or vice-versa	up to 0.20P
10. Insufficient amplitude in an element	up to 0.20P
11. Lack of C natural acrobatic element (USGF Level 9 and 10)	0.10P
12. Lack of natural acrobatic B (USGF)	0.10P

SPECIAL REQUIREMENTS

1. One gymnastic series with three elements (minimum A *DIRECTLY CONNECTED*)
2. One gymnastic B
3. Three different acrobatic series* with two different saltos one of which contains one acrobatic series with two saltos or a D salto

4. One gymnastic/acrobatic direct connection
5. A "B" dismount**

Absence of Special Requirements—deduction each time of 0.10P

*One acrobatic series must consist of at least three acrobatic elements, which contains one salto (i.e. round-off, flic-flac, salto backward stretched). Gymnastic elements cannot replace acrobatic elements in an acrobatic series; they can only be additionally included. It will be recognized as a different series if another element is performed before or after the same salto.

**The dismount requirement is fulfilled if:

1. One acrobatic element from B in the Table or
2. One gymnastic element from B is performed as the last value part.

The dismount requirement is fulfilled if the following variations are chosen:

1. Acrobatic dismount series closes with B or more difficult—there follows yet another A-element.
2. Acrobatic dismount series closes with A—there follows a more difficult acrobatic or gymnastic element from B.

GENERAL DIRECTIVES FOR ALL EVENTS

The order of succession of value parts A, B, C, and D can be freely chosen.

Bonus Points for elements (.10-.20) executed within a connection can be added with the value of the connection.

i.e. connection	= .10
element (.10) according to the list within this connection	= .10
TOTAL	= .20

Gymnastics Reading and Reference Material

Editor's Note:

Special thanks to A.B. Frederick, Ph.D., senior editor for International Gymnast Magazine *for the use of his previously published article, "Gymnastics: A Guide to the Literature" (*IG*, July 1982), for use in the following compilation of gymnastic reference material.*

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OFFICIATING

ABO Executive Council

ABO Executive Committee

Terry Lawton, Past Chair
Marcia Alterman, Chair
Ann Casey, Chair-elect
Peggy Kellers, NAGWS Executive Director

ABO Sport Representatives

Nancy Sommer, Volleyball Representative
Janis Matson, Softball Representative

Other Council Members

Terry Lawton, Examinations Coordinator
Karen Gee, National Rating Team Coordinator
Ann Fruechte, National Training Team Coordinator
Louise Rota, High School Representative
Sue Lemaire, Rules Interpretation Coordinator

If you have questions concerning the techniques of officiating gymnastics, write to:

Dr. Mary McLellan
129 Mitchell Hall
University of Wisconsin
La Crosse, WI 54601
608-785-8182

Additional information regarding ABO officiating concerns may be secured by writing:

Affiliated Boards of Officials
NAGWS/ABO Program Administrator
1900 Association Drive
Reston, VA 22091

NAGWS
Affiliated Boards of Officials

The Affiliated Boards of Officials (ABO) is a structure of the National Association for Girls and Women in Sport (NAGWS). The following official statement of goals was approved by the ABO Executive Council (Fall, 1977) in an effort to clarify the future directions of ABO:

1. To improve the quality of officiating for girls' and women's sports contests, regardless of the level of skill/maturity of players, or the rules governing the contest.
2. To increase the number of competent women officials, not to the exclusion of men, but as needed affirmative action.
3. To promote the involvement of women in the governing bodies of other sport officiating groups.

The purpose of the ABO is to promote quality officiating for girls' and women's sport programs by:

1. Developing officiating techniques
2. Providing materials for training and rating officials
3. Disseminating information about officiating
4. Promoting the use of ABO-rated officials
5. Developing standards of conduct for officials compatible with the philosophy of the NAGWS
6. Providing the organizational and administrative structure of the coordination of Affiliated Boards
7. Promotion standards with respect to fees, ratings, and uniforms.

Over 100 Boards of Officials throughout the United States are affiliated with NAGWS/ABO. These boards provide opportunities for interested individuals to learn about officiating or judging in various sports. The ABO disseminates information on proper techniques and mechanics, and sets standards for evaluation based on those techniques. The ABO also provides theoretical testing materials and sets standards used to evaluate officials on their knowledge.

Statement of Philosophy of the Affiliated Boards of Officials

The Role of the Officials in the Competitive Situation

Educational values should be of primary concern to all who have leadership roles in a competitive program. As one of those fulfilling leadership roles, the official must be concerned with promoting those values and with the welfare of the participant. The unique contribution of the official is assuring equal opportunity and fair play for all. The official essentially acts as an arbitrator, providing judgments that are within the spirit and intent of the rules. Decisions are based on objective evidence, free from bias and from the emotion that often pervades the competitive environment.

An official enters the competitive situation with a thorough understanding of the letter, as well as the intent of the rules, the strategy and skills of the sport to be played, and correct execution of officiating techniques to view the contest accurately. The official maintains a friendly yet reserved attitude toward all throughout the sport experience. The official is flexible, operating within officiating standards appropriate to the age of the performers, the level of skill, and the facilities available. Biases by players, spectators, and coaches will be evaluated with an understanding not only of the multiplicity of ways in which individuals may react to a competitive experience but also of the behavior appropriate to such an educational experience. Duties will be performed fairly, efficiently, and without drawing undue attention to the official. In order to strengthen the official's effectiveness, personal evaluation of performance will be made and solicitation of constructive criticism from coaches, players, and administrators will be sought. Though receiving a fee, the ultimate reward of the official will be that of having rendered a valuable service to girls and women who have found personal meaning in expressing themselves through the medium of sport.

Standards for Officials' Ratings In Gymnastics

Effective July 1, 1989

Level 10 Judge

1. Minimum grade—Theoretical Compulsory, Optional, and Practical examination; 80% passing on each part.
2. Eligibility—20 years of age; must have previously attained a Level 9, Class 1, or Class 11 rating (1985-89). Senior National Elite level gymnasts may begin testing at Level 10. Proof of Senior National Elite status in the form of a letter of verification from the USGF Regional Chairperson must accompany exam.
3. Duration—until December 1993 (throughout the Olympiad).
4. Examination content:
   Practical—optional exercises in all four events
   Theoretical—50 questions Level 10 Compulsories and 50 questions Optional
5. Qualified to judge any Level 10 competition in any geographical area
6. Must maintain active status by fulfilling all requirements on the Active Status Report forms.

Level 9 Judge

1. Minimum grade—Optional only, theoretical and practical; 75% passing on each part.
2. Eligibility—18 years of age; must have previously attained a Level 8 for one year, or a Compulsory 6 & 7 for one year, which may run simultaneously. Class 1 level gymnasts may begin testing at Level 9. Proof of prior Class 1 status in the form of a letter of verification from the USGF State Chairperson must accompany each exam.
3. Duration—until December 1993 (throughout the Olympiad)
4. Examination content:
   Practical—optional exercises in all four events
   Theoretical—50 optional questions
5. Qualified to judge Level 9 competitions up to and including the state level in any geographical area
6. Must maintain active status at Level 9 for one certification year before being eligible to take the Level 10 examination.
7. Must maintain active status by fulfilling all requirements on the Active Status Report forms.

Level 8 Judge

1. Minimum grade—Optional only, theoretical and practical; 70% passing on each part.
2. Eligibility—16 years of age; this is an entry level
3. Duration—until December 1993 (throughout the Olympiad)
4. Examination content:
   Practical—optional exercises in all four events
   Theoretical—50 optional questions
5. Qualified to judge Level 8 competitions up to and including the state level in any geographical area
6. Must maintain active status by fulfilling all requirements on the Active Status Report forms.

Level 6 and 7 Judge

1. Minimum grade—Compulsory only; 75% passing
2. Eligibility—16 years of age; must have passed Compulsory Judge Level 5
3. Duration—until December 1993 (throughout the Olympiad)
4. Examination content:
   Theoretical—50 questions on Compulsory exercises Levels 6 and 7
5. Qualified to judge Level 6 and 7 competitions.
6. Must maintain active status by fulfilling all requirements on the Active Status Report forms.

Level 5 Judge

1. Minimum grade—Compulsory only; 70% passing
2. Eligibility—16 years of age; this is an entry level
3. Duration—until December 1993 (throughout the Olympiad)
4. Examination content:
   Theoretical—50 questions on Compulsory exercises Level 5
5. Qualified to judge Level 5 competitions up to and including the state competition in any geographical area
6. Must maintain active status by fulfilling all requirements on the Active Status Report forms.

Provisional Judge

The Provisional rating has been established for new individuals who are interested in becoming judges. Once these individuals have completed the 12 hour requirement and participated in the written self testing and the practical judging, they will earn a Provisional rating.

A. Procedures established for the awarding of the Provisional rating:

1. Rating card provided by Judges Certification Inc. which would be valid for one year from date of issue.
2. During the second year individual must certify as a Compulsory or Optional judge. May not serve as a Provisional judge for more than one year.
3. Provisional judge must be assigned with higher level judge.
4. May not be assigned in place of a Compulsory (Level 5) or higher judge. Only to be assigned if no one else is available at Level 5.
5. Recommended fee for a Provisional judge is $16.00 per session.
6. Uniform for Provisional judge will be a navy or black skirt/slacks with a white blouse.
7. Minimum age for achieving the rating will be 16 years old.
8. Provisional judges do *not* have to complete Active Status requirements.

B. The Course

1. Length—Course must consist of a minimum of 12 hours in length.
   a. Judges Certification recommends—One 3-hour session a week for four weeks
   b. Alternative—Two 3-hour sessions a weekend for two weekends.

Judges' Certification, Inc.

ORDER FORM

PROVISIONAL JUDGES' COURSE

NAME _____ DATE _____

ADDRESS _____

CITY, STATE, ZIP _____

JUDGING LEVEL _____ REGION _____

ORDER FORM

QUANTITY	ITEM	COST	TOTAL
	Study Guide	$5.00	
	Video Tape	$20.00	
	Shipping	$0.00	

TOTAL DUE _____

Materials may be ordered from: Sue Ammerman, 23 Chicopee Dr., Wayne, N.J. 07470
(201) 633-5248

e. It is not recommended to present the Course in one weekend.

2. Instructor requirements—must be a State or above rated official. Optional or Compulsory judges are **NOT** eligible.
3. Costs:
   a. Instructor's cost—$20.00 (includes book and videotape)
   b. Participant's cost—$5.00 for manual. There may be additional expenses for Compulsory book and fee for course.
   c. Materials for the course may be requested from Sue Ammerman, Examination Director.

C. Videotape for the Course

1. Exam tape will consist of one demo routine (not scored) and five test routines for each event.
   a. The practical scores will be included with the videotape.
2. In addition, several practice routines on each event will be included at the beginning of the tape.

D. Other suggestions for course presentation:

1. Take the class to a gymnasium and observe Level 5 gymnasts in training.
2. Go to a meet and sit in the stands and practice judge.

E. Reporting:
The instructor should send a list of those who completed the course to Varina French, their SJD, and their local assigning person. (Form included in course packet and Test Administrators Guide.)

Please Note:

1. A judge may test separate compulsory parts (5, 6 & 7), or both tests at the same time. The tests MUST be taken in the proper sequence first 5, then 6 & 7.
2. Each part of the exam may be taken separately. A minimum score must be reached in each part of the exam. *NO AVERAGING of scores in this quadrennium.*
3. In order to become a National, Elite, or Brevet Judge, you must be invited to attend the appropriate course and attain the passing score.

Patch and Uniform

Gymnastics officials must wear the official National Association of Women's Gymnastics Judges (NAWGJ) uniform: blue blazer with matching skirt and a white blouse.

For information regarding patches and uniform, contact Betty Sroufe, 2096 Rolling Hills, Fairfield, Ohio 45014.

Registration of Officials

Most states require those who officiate either boys' or girls' interscholastic contests to be registered with the State High School Athletic Association or other administrative body. All NAGWS/ABO officials who officiate high school or junior high school games are urged to cooperate fully with their state regulatory body.

Amateur Standing of Officials

An official who wishes to maintain amateur status as a participant in a sport, must be aware of the ruling(s) on amateur status established by the respective governing body for that sport.

Amateur status is defined by high school and college governing bodies as well as by national sport governing bodies that hold the franchise from international sport governing groups.

The official who wishes to maintain amateur status as a participant is responsible for investigating the specific regulations of *each* governing body with jurisdiction over such eligibility.

National Governing Body for Gymnastics

The United States Gymnastics Federation (USGF) is the national governing body for gymnastics in the United States. Information regarding the amateur status rulings of the USGF may be ascertained by writing to the USGF Office Pan Am Plaza, 201 S. Capitol Suite 300, Indianapolis, Indiana 46225, phone 317/237-5050.

How to Obtain a Rating in Gymnastics

The Gymnastics Rating is a rating administered by the Judges' Certification, Inc. (J.C. Inc.) with committee member representatives from NAGWS, NAWGJ (National Association of Women's Gymnastics Judges) and the USGF (United States Gymnastics Federation).

To obtain a rating from an approved NAGWS/ABO Gymnastics Board:

1. Contact the National Association for Girls & Women in Sport (NAGWS) 1900 Association Drive, Reston, VA 22091; (703) 473-3450.
2. Source material for exam study:
   a. *FIG Code of Points*, 1989
   b. *Gymnastics*, from NAGWS
   c. Compulsory Routines from the USGF National Routines (all levels)
   d. *Biomechanics of Womens Gymnastics* by Dr. Gerald S. George
   e. Any *OFFICIAL* changes from the USGF Women's Technical Committee
3. Attend interpretation meetings, judging clinics, or training courses conducted in your vicinity
4. Practice often. To some, judging comes easily; to others it comes only as the result of hard work and concentration. Welcome constructive criticism and work diligently for improvement

5. Take your rating remembering that it is the aim of the Affiliated Board of Officials to maintain the highest of standards and professionalism for officials.

ONLY certified boards and approved USGF and NAWGJ personnel may rent the rating film. The rating film is rented for a three-day period. To obtain the film, send a request to Varina French, Certification Coordinator, listing a primary and two alternate test dates. Send a copy of the request to Sue Ammerman, Vice-President, Policies and Procedures, 23 Chicopee Drive, Wayne, N.J. 07470 to obtain the examination packet. Upon confirmation of the rating film request, the film and examination packet will be sent prior to the administration date.

Source of Film Rental

Judges Certification Film. 16mm; color/sound; $30.00 plus postage for a three-day period. Order from Varina French, Certification Coordinator, P.O. Box 328, Borrego Springs, CA 92004. Available only to certified NAGWS, NAWGJ, and USGF authorized personnel.

Rating Examination Costs

Film Rental: $30.00 + postage
Minimum per administration: $72.00 (exclusive of film rental)
Minimum per examiner: $12.00 for each test part, i.e., compulsory, optional, practical —$36.00
Expenses for duplicating written examinations may not be deducted.

Information for Affiliated Boards

How to Establish a Gymnastics Board of Officials

1. Establish the need for an affiliated gymnastics board by contacting individuals in the area who have current ratings or who are interested in standardizing and raising the level of gymnastics officiating.
2. Writing to Executive Director, c/o NAGWS National Office, 1900 Association Drive, Reston, VA 22091, for a sample copy of an authorized constitution for officials' boards and an application for becoming an affiliated board.
3. At a designated meeting of interested individuals present plans for forming a board.
   a. Choose a name which will permit expansion of function as need may arise; do not limit the title to one sport.
   b. From the group, elect a chair, chair-elect, secretary, and treasurer.
   c. Form an examining committee of at least three members. If any member has been rated elsewhere, such experience should be helpful; such a rating is not necessary, however. It is suggested that members of the examining committee be examined and obtain ratings from other affiliated boards whenever possible.
   d. Make plans for drawing up a constitution according to the sample copy received from the Executive Director. Plan to devote some time to the study of

the rules and to practice officiating.

4. Send the completed application form, two copies of the local constitution, and a check for the $25.00 affiliation fee (make payable to NAGWS/ABO) to the NAGWS National Office. List the names and qualifications of three interested individuals who will serve on the initial rating committee. Approval of the application will come from Judges Certification, Inc., Dr. Mary McLellan, ABO National Gymnastics Chair, 129 Mitchell Hall, University of Wisconsin. LaCrosse, WI 54601 (ABO National Gymnastics Chair). The process of accepting an application for affiliation of a new board ordinarily takes several weeks. Prospective boards, therefore, should file for affiliation at least two months before they wish to hold rating sessions.

Maintaining Affiliated Status

To maintain affiliated status with NAGWS/ABO, a Gymnastics Board must:

1. Pay dues each year to the NAGWS National Office. (Notification will be sent each Fall.) Gymnastics boards, whether sport-specific or part of a multisport board, are charged a nominal fee which covers the entire gymnastics board.
2. Submit a sport report by March 1 each year to the Gymnastics Examination and Ratings Chair regarding the current status of rated officials. For more information on sports reports, contact Dr. Mary McLellan, ABO National Gymnastics Chair, 129 Mitchell Hall, University of Wisconsin. LaCrosse, WI 54601.

Techniques of Officiating Gymnastics

Revised by the ABO Principles and Techniques of Officiating Committee

The following is a general overview of the application of gymnastic rules for competition. It is important, therefore, that all the sources be consulted for complete understanding of rules and officiating techniques. The official USGF Women's Technical Committee interpretation of rules, plus the FIG Code of Points, should be used as the supplements to the outlines presented.

Part I. Suggested Officials for a Meet

Section 1

Officials for a dual or three-way meet:

1. One chief judge and one to three acting judges per event
2. One chief scorer
3. Two assistant scorers
4. One announcer
5. Two to four timers (depending upon the number of events to be run simultaneously; two events run at one time—three timers; four events run at one time—four timers)
6. Two to four runners.

Officials for a larger meet: i.e. State Meet

1. One meet director
2. One meet referee
3. One to four chief judge(s) (depending on the number of events run at one time)
4. Three to 12 acting judges (depending on the number of events run at one time)
5. One to four judges assistants
6. One chief scorer
7. Two to eight assistant scorers, two at each event
8. One announcer
9. Two to four timers
10. At least two runners per event.

Section 2

The meet director shall:

A. Obtain the facilities and gymnastics equipment for the meet including:

1. Gymnasium with all necessary apparatus.
2. Special warmup area with identical apparatus for larger meets.
3. Lockers and locker room for the competitors.
4. Changing area for coaches and officials (preferably another locker room).
5. Seating arrangements for spectators.
6. Seating area for teams.
7. Chairs and tables for judges, announcer, and scorer.
8. Chairs for runners, timers, and score flashers.
9. P.A. system, stopwatches, paper, and pencils.
10. Record player and tape recorder.
11. Gymastics chalk and fine sandpaper.
12. Tape measure to check the apparatus, preferably in metric units.
13. Score flashers.
14. Awards and people to present them (not necessary for dual meets).

B. Send out entry forms at least two months in advance.

C. Receive the names of the entries at least two weeks prior to the meet (Unless a different deadline for entries was set). Use a random draw for the order of competition—teams or individual.

D. The meet director shall appoint assistants as necessary.

E. Apply to the appropriate association for the assignment of officials.

F. Determine the suitability of all apparatus and supervise its placement, allowing space for mounts and dismounts, roping off spectators' entry, and runway for vaulting.

G. Provide for an athletic trainer, nurse, or physician to be present at the meet.

H. Prepare lists of competitors for scorers, announcers, clerks, and chief judges. Prepare worksheets for acting judges, scoresheets for individual events, all-around, and team results.

I. Duplicate the results of the meet and mail them to the teams and appropriate organizations.

Section 3

The meet referee shall:

A. Check all apparatus for regulation height, width, or distance.

B. Meet with judges and coaches (separately or combined) immediately prior to the meet for necessary clarifications of rules and difficulties).

C. See that all rules and regulations are enforced and shall have the power to disqualify competitors, judges, or coaches for serious infractions or extremely unsuitable conduct.

D. Handle all inquiries.
Note: In dual meets, the chief judge may assume the additional duties of the referee.

Section 4

The Chief Judge shall:

A. Assign the acting judges to their places, apart from each other, and preferably on all sides of the performing area.

B. Signal the gymnast to begin.

C. Conduct a conference with the judges after the first performance in each individual event in order to establish a common basis for scoring the performances.

D. Counsel the judges on any significant variations in compulsory exercises.

E. Counsel the judges on any extreme inadequacies of an exercise.

F. Supervise the timers during the events in which they are active.

G. Subtract from the competitor's average, if necessary, deductions for
   1. Time infractions
   2. Going out of bounds in floor exercise
   3. Improper attire
   4. Coach talking to or making signals to a performing gymnast
   5. Gymnast taking an extra warm-up during judges' conference.
   6. Gymnast failing to present herself to the chief judge at the beginning of an exercise

H. Take on the duties of a meet referee in dual and three-way meets.

I. Conference with the acting judges when the middle scores do not fall within the correct point range. The range is determined by the *average score.*

1. Preliminary Compulsory/Optional Competition
(Competition 1-A and 1-B Rules)

	Scores from/to	Maximum difference allowed	
	9.5-10.00	0.1 point ..... F	0.1 point
U	9.0-9.475	0.2 point I	0.2 point
S	8.5-8.975	0.3 point ..... G	0.3 point
A	Below 8.5	0.5 point	
	5.0 & below	1.0 point	

The difference between the score of the chief judge and the average of the two middle scores may not be greater than the allowable points listed. Also, the difference between the two middle scores should not exceed the maximum difference allowed.

Example: 4 Judge Panel
Chief Judge 8.4 8.0 8.3 8.5
Average is 8.35
Difference between the two middle scores is .1 (acceptable).

Example: 4 Judge Panel
Chief Judge 7.3 8.0 8.1 7.4
Average is 7.70
Difference between the two middle scores is .6 (*unacceptable*).

Example: 2 Judge Panel
Chief Judge 8.1 7.8
Average is 7.95
Difference between the two scores is .3 (acceptable).

Example: 2 Judge Panel
Chief Judge 6.6 5.7
Average is 6.15
Difference between the two scores is .7 (*unacceptable*).

In the case of an unacceptable point spread the chief judge will conference with the judges to see if value parts and bonus parts have been correctly awarded or deductions have been applied.

Section 5

The acting judges shall:

A. Be familiar with the rules and the value of the elements.

B. In the case of compulsory meets, be thoroughly familiar with the compulsory exercises and their specific deductions.

C. Arrive at least 30 minutes before the starting time of the meet.

D. Follow the instructions of the chief judge.

E. Judge independently and without communicating with the other acting judges, except in the cases of conferences called by the chief judge.

F. During short breaks in competition, stay at their events and avoid any contact with coaches, competitors, or parents of the competitors. (All inquiries or questions should be referred to the meet referee).

G. Be impartial and objective.

H. Be able to justify her score. Have all the major deductions as well as value parts awarded listed on the worksheet.

I. Award credit for all work completed up to the point of cessation, if at any time an exercise is not finished.

J. Arrive at a score within 30 seconds of the end of the exercise.

K. Not be a parent, coach, or teammate of a gymnast in the meet.

Section 6

The chief scorer shall:

A. Supervise all scoring and act as auditor of the average score.

B. Be provided with scoring worksheets for each event.

C. Supervise the recordings of all scores to ascertain that each score is credited to the proper competitor and to the proper judge.

D. Post official scores.

E. Prepare a finals result sheet for each event and the all-around to be used for the award ceremony.

Section 7

The announcer shall:

A. Open the meet, introduce the officials, and announce the order of events.

B. Announce the order of competitors.

C. Report the results of each event after having been checked by the chief scorer.

D. Read the results of the meet at the conclusion of the competition.

Note: In large meet situations, the announcer shall avoid announcements during competition.

Section 8

The timer(s) shall:

A. Operate stopwatches for the following events:

1. Floor Exercise.
   Running Time: *Starts* with first movement of the gymnast
   Stops with the last movement of the gymnast.
   Time Limitation: 1:00-1:30 (All levels of optionals)
   Warning 1.25
   Time 1:30

2. Uneven Bars.
   Fall Timing: *Starts* when gymnast contacts the floor
   Stops when the gymnast leaves the floor
   Warning :25 seconds
   Time :30 seconds

3. Balance Beam.
   Running Time: *Starts* when the gymnast's feet leave the board or floor
   Stops when the gymnast arrives on the floor
   After a fall, the official time stops upon contact with the floor and resumes with the first movement to continue the exercise.
   Time Limitation: 1:10-1:30 (All levels of optionals)

Warning 1.20
Time 1:30

A FALL IS TIMED SEPARATELY WITH ANOTHER STOPWATCH.

Fall Timing: *Starts* when the gymnast falls to the floor
Stops when the gymnast remounts the beam (leaves the floor)

Time Limitation: Warning :05 seconds
Time :10 seconds

The timer will give a verbal notification of "5 seconds remaining" for remounting after a fall.

All Timers

All signals for warning and time must be loud enough for the gymnast to hear clearly.

If you happen to make a mistake when timing, *always* give the allotted time between warning and time. Do not clear the time from the watch until the Chief Judge requests the time. The Chief Judge will want to verify the time when an undertime or overtime infraction has occurred.

Part II. Scoring in a Gymnastics Meet

Section 1

Judge's workpaper:

A. Score slips for sending in the final score should be provided for every acting judge and chief judge.
B. A list of the *corrected* (corrected at the coaches' scratch meeting) competitive order (including the names and numbers of the gymnasts) should be given to all the judges.
C. Vaulting scoresheets must be double in number for judges to send in a score for each of the two vaults.

Section 2

Scorers' worksheets:

A. Scorer's worksheets (also called scoresheets) should be available. One of the copies, designated as the official scoresheet, should be checked by the chief scorer, meet director, and chief judges before the final results are announced. A separate scoresheet should be prepared for the team scores and be maintained during the meet to expedite team results at the conclusion of the competition.

B. The *scorer's* worksheets for vaulting are similar to the ones used for Compulsory/Optional competition, with the two sets of boxes designated at Vault 1 and Vault 2. In the "Average" column, the better average of the two vaults should be circled and counted as the competitor's score for the vaulting event.

Judge's Scoreslip

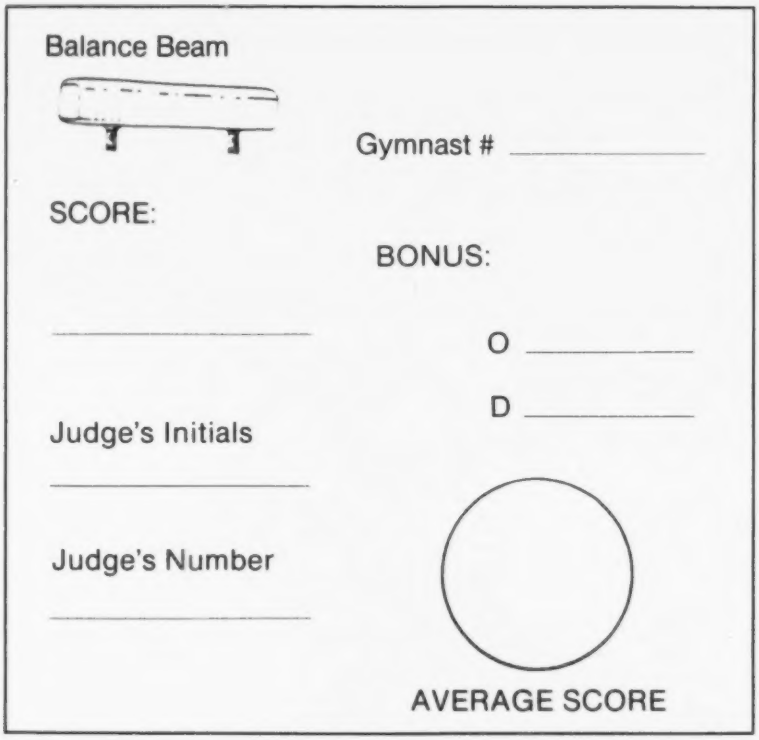

Diagram 1. Judge's sample scoreslip for UB, BB, and FX. Should be color-coded by event.

Judge's Scoreslip

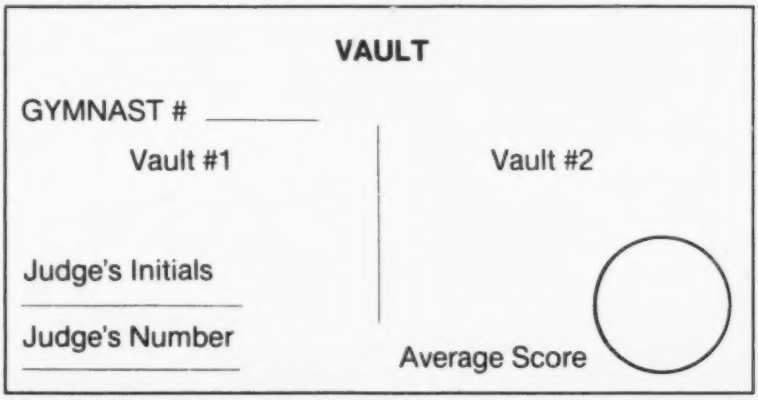

Diagram 2. Judge's sample scoreslip for Vault. Should be color-coded by event.

Gymnastics Competition Scoresheet

SUNSHINE INVITATIONAL Meet Ref.: MADELYN S. DORN		Date 03/03/89			Open Age Group Class Adv Opt		
Club	No. Name	USGF#	Vault	Bars	Beam	Floor	A-A
SPORT	309 — Melanie Last Name	1022969	8.50	8.45	7.40	8.40	32.75
———	310 — Scratched	———					
SUNRAY	311 — Courtney	1001829	8.25	7.90	7.70	7.90	31.75
SUNRAY	312 — Jenny	1001844	8.10	7.90	7.50	7.85	31.35
SUNRAY	313 — Jill	1008557	8.30	5.55	7.15	8.55	29.55
SUNRAY	314 — Stacey Ann	1001842	8.20	7.30	6.60	7.85	29.95
SWISS1	315 — Bridget	1023775	8.65	7.85	7.75	8.70	32.95
SWISS1	316 — Jenny	1023770	8.70	6.85	8.10	8.00	31.65
SWISS1	317 — Kelly	1023771	8.25	6.25	7.40	7.30	29.20
SWISS1	318 — Tami	1023778	7.70	6.15	7.80	8.10	29.75
SWISS2	319 — Jamie	1004250	7.90	7.55	8.35	8.25	32.05

Diagram 3. Scorer's sample worksheet: Compulsory/Optional.

Section 3

Determining the average

A. The average score of the gymnast is determined by eliminating the highest and lowest scores awarded by the judges and averaging the middle two.

B. In case fewer than four judges are used, all the scores should be averaged. All scores should meet the criteria for correct point range.

Section 4

Determining the team score

A. *Dual/Triangular Competition.* The number of competitors entered in each event may be determined by school/league rules. Generally a maximum number of entries is specified as well as the number of scores to count for the

team total. For example, there might be a maximum of eight entries per event with the highest five scores to be totaled toward the team score. The final team score will be the total of the specified number of scores on each event.

B. In larger meets (state, regional, etc.), the number of entries from each team may be decided by the meet director or directing organization. The recommended number, however, is six per event, with the top five scores counting for the team total. In this case, the top five scores earned by the competitors of a team on each event will be totaled for the event score. The total of the four event scores constitutes the team score.

C. In meets where both compulsory and optional exercises are used, the team will earn two scores—one for compulsory exercises and one for optional exercises on each event (in the same manner as stated in B). The scores will be added for the final team score.

Section 5

Determining the all-around score

A. The final score earned by a competitor on each event will be totaled for the all-around score.

B. In meets where both compulsory and optional exercises are used, a competitor earns two all-around scores: one for compulsory exercises; one for optional exercises. These scores can be added for the competitor's final all-around score.

C. Winning the all-around does not add to the team point total. It is an individual honor.

Section 6

Determining the scoring method:

A. Either open or closed *may be* acceptable in meets below national championship level dependent upon the rules set forth by the governing body.

B. Explanation of methods:
Closed Method. Judges arrive at their scores independently. Runners carry the scores to the chief judge who computes the average and determines whether they are in range. The public does not see the individual judge's score, only the average.
Open Methods. Judges arrive at their scores independently. The scores are sent (modified open) or flashed (open) to the chief judge. After determining that the scores are in range, the chief judge signals to the flashers and the scores are shown to the public.

C. In each case, the competitor's average is flashed from the scorer's or chief judge's table after it has been computed and double-checked.

D. The meet should not be held up for the average to be flashed. If necessary, it can be announced after the next competitor has completed her routine.

E. In the closed method, only the best average of the two vaults is flashed to the audience. However, the coach may request the average of the first vault. If the open method is used, all scores should be flashed.

Part III. Order of Events

Section 1

Large open meets

The order of events for large open meets should be determined by the availability of space, the number of entries per event, and the number of events run at one time. Any practical combination is acceptable, as long as it is known to the competitors ahead of time.

Section 2

Dual and triangular meets

In dual and triangular meets, the following order of events has been accepted by most areas since it corresponds with the international rules: vaulting, uneven parallel bars, balance beam, and floor exercises.

Part IV. Equipment and Performing Areas

Section 1

Measurements and dimensions

The dimensions of the apparatus specified here are those published by the *International Gymnastics Federation*. Variations from the measurements may be approved by mutual agreement of the parties involved, provided they meet the standards under which the teams are competing.

The measurements here include both metric and linear. The linear measurement is based upon the conversion of one centimeter equaling 0.03937 of an inch and one meter equaling 39.37 inches, figured to the nearest tenth of an inch.

A. **Vault**

Total apparatus height is 1.20m or 3′11¼″ (47¼″), determined by measuring the distance from the surface on which the horse will be placed to the top of the horse. The horse should be placed on a level and stable foundation and, where possible, fastened to the floor or ground. The area on the landing side of the vaulting horse shall be sufficiently padded to afford a soft landing. Vault mat requirements:

a. Landing area is 8′ by 18′ and must be matted with a minimum of 1¼″ base mat.
b. A minimum of one 6′ by 12′ by 3¾″ plus ½″ landing mat is required over the base mat.
c. One additional 3¾″ plus ½″ landing mat may be placed on top of the 5¼″ plus ½″ matting.
d. Any combination of matting system is allowed provided that the total thickness does not exceed 10½″ (24cm) ± ¾″ and *all mats* are uniform in width and length.

Runway FIG Specifications: Minimum 78′, Maximum 82′.

Take-off Board: Only unaltered manufactured vaulting boards that meet FIG specifications (20cm ± 2cm) are approved. All meet directors must arrange to have boards that accommodate gymnasts of all weights.

B. **Uneven Bars**

High bar 235cm (92-1/32″). Low bar 155cm (61-1/32″).

Distance between the bars: must close to a minimum of 60cm (23⅝″) and extend to a maximum of 105cm (41-1/3″).

Mat requirements:
a. 12cm mat thickness is required. (3¾″ + 1¼″)
b. FIG specifications: 39½′ by 7½′.
c. One additional 3¾″ ± ½″ landing mat may be placed on top of the 5¼″ + ½″ matting.
d. Any combination of matting system is allowed provided that the total thickness does not exceed 10½″ (24cm) ± ¾″ and *all mats* are uniform in width and length.

Take-off Board: Only unaltered manufactured boards that meet FIG specifications (20cm ± 2cm) are approved.
a. The board *must* be removed as soon as possible after the gymnast has mounted.
b. Plywood is *not permitted* to be used underneath the board.

C. **Balance Beam**

FIG Specifications 120cm (47¼″) total height; measured from the floor to the top of the beam. Padded manufactured beams are required at all sanctioned competitions.

Mat requirements:
a. 12cm mat thickness is required.
b. Landing area minimum 6′ x 18′ by 3¾″ ± ½″ landing mat is required over the 1¼″ base mat at both ends of the beam.
c. It is recommended that the entire mounting area be level.
d. Any combination of matting system is allowed provided that the total thickness does not exceed 10½″ (24cm) ± ¾″ and *all landing mats* are uniform in width and length.

Take-off Board:
Only unaltered manufactured boards that meet FIG specifications (20cm ±2 cm) are approved.

a. The board *must* be removed as soon as possible after the gymnast has mounted.
b. Plywood is *not permitted* to be used underneath the board.

D. **Floor Exercise**
a. FIG specifications 12 meters x 12 meters (39′4-7/16″ x 39′4-7/16″).
b. The measurement is from the outside of the tape or where the carpet changes color.
c. The floor surface must be a minimum of 1¼″ thick (3.2cm) to a maximum of 7″ thick (17.8cm).
d. The top of the mat must be joined into one continuous level surface.
d. If carpeting is used, ¼″ pile is maximum height recommended.
f. Rebound or spring type floors are required for all Elite, Level 10, and Level 9 competitions.

General Considerations:

A. Athlete safety guidelines as listed in the USGF Gymnastics Safety Manual should always be considered.

B. It is recommended that there be a clearance of 5′ to 6′ from one apparatus to any other. This includes corresponding mat area or any other obstruction, i.e., other apparatus, walls, pillars, etc.

C. Any specifications other than FIG must be published in the pre-meet information.

D. All meet directors must arrange to have boards that accommodate all weight gymnasts. Any board in a competition must be assigned to a designated event and should not be moved until the designated event is completed. Boards must be available to all gymnasts in the meet for warm-ups and competition.

QUESTIONS ON TECHNIQUES

Questions concerning officiating techniques in gymnastics may be directed to:

René Niccollai
1850 Eagle Trace Boulevard
Coral Springs, FL 33071

Notes

American Alliance for
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Recreation and Dance
1900 Association Drive
Reston, Virginia 22091

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